

## Section 4 Historic Artifacts

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### 4.1 Methodology

The artifacts were divided into three categories: glass bottles, ceramic vessels, and miscellaneous artifacts. A total of 1,441 historic artifact/artifact fragments were collected, consisting of 384 ceramic vessel/ceramic vessel fragments, 541 glass bottle/bottle fragments, and 516 miscellaneous items. In the Test Excavation Volumes of this report (Volumes IVA to IVD), a summary of this information is presented in text and tables by test excavation, with accompanying photographs. The test excavation tables have less information than the tables in the following section, and in a slightly different form (i.e. some information in the different columns are summarized, merged, or moved). In this section of the report, a complete description of the historic artifacts is presented in table format, with information on artifact attributes and measurements. Historic artifacts have an accession number, starting with the test excavation number, followed by A (for historic artifacts) and a number. Some ceramic vessels, glass bottles, or other items may consist of several fragments. All fragments from the same vessel/bottle are assigned the same accession number, thus the total number of “artifacts,” or fragments is usually greater than the total of accession numbers. Accession numbers are used consecutively for all historic artifacts within the three categories for one test excavation, with the result that the “first” bottle or miscellaneous artifact in the following tables may not start with Acc. # 1. The text preceding the tables indicates how the recorded attributes or descriptions were used to determine the age, ethnic origin, and function of the artifact. The text also includes the reference sources used to identify: the glass makers, potteries, or other companies that manufactured the items; the bottlers or companies who bought the glass, ceramics, or metal items and filled them with their product or modified them for sale to the public; and, any specific information concerning the relationship of these companies to Hawai'i and to the Kalihi to Kālia area of the Honolulu District. The historic artifacts discussed within this section and the accompanying tables do not include those identified within bulk sediment samples; artifacts identified during wet and dry screening are discussed in Volumes IVA-IVD within the test excavation Sample Results summaries.

Ceramic (Tableware and toiletry) vessels have specific attributes that can be analyzed to identify types, decorations, motifs, and manufacturing dates. The attributes are type, paste, glaze, ware, decoration, design motif, and rim motif. Similar fragments and portions are compared and are used to determine the minimum number of vessels, as some fragments may be from the same vessel. Accession numbers were assigned to each possible vessel. A dash within a table cell indicates that the attribute was not applicable to that specific item or that a fragment was too incomplete to determine a specific attribute. For instance, under design motif, if the information is “None,” the fragment was large enough to determine that there was no design. If the information area has a dash and no verbiage it indicates that, although there was no design on one fragment, there might have been a design on the complete vessel, but the fragment was too small to definitely determine.

Glass bottles have specific attributes that are analyzed to identify the manufacturing technique, the manufacturing date, and the probable contents of the bottle. The attributes recorded are lip type, lip finish, color, dimensions, base shape, the type of mold seams (if any),

and any embossing or other type of label on the bottle. The portion (including complete bottles) of each bottle fragment was recorded in order to determine a minimum number of bottles for each provenience (e.g., two small amber body fragments and two aqua bottle bases could be portions of a maximum of four bottles or may be from just three bottles, one amber and two aqua). Again, accession numbers are presented for each possible vessel; thus, an accession number may represent more than one fragment. A dash in a cell indicates that a fragment did not include the attribute and could not be determined. For instance, the fragment was a bottle base only, so the lip finish could not be recorded.

Miscellaneous artifacts, including non-bottle glass fragments (such as insulators and window glass), non-Tableware or toiletry ceramics (such as flowerpots and tiles), and metal items are not generally analyzed by a wide variety of specific attributes; instead they are briefly described in tables presented in the following section.

Some abbreviations used in the following tables include Acc. # (Accession Number), Prov. (Provenience), frag. (fragments), pc. (piece), No./no. (number), Decor. (Decoration), int. (interior), ext. (exterior), H or Ht. (Height), W (Width), D or Di. (Diameter), and T (Thickness). All artifact measurements were recorded in centimeters (cm), except bricks, which were measured in inches (in). There are no measurements for fragments, especially for miscellaneous items (e.g. window glass, brick fragments, metal scraps) or for incomplete attributes (e.g. bottle base is not measured for height). If there is no measurement, the cell is filled with a double dash or N/A for Not Applicable. If there is no additional information for a cell (such as in the Comments or Description columns), the cell is filled with a double dash.

## 4.2 Glass Bottles

There have been a number of attempts to standardize the description of glass bottle attributes, but each analytical system uses a variety of descriptive terms and date ranges for specific attributes. In the last few years, the Bureau of Land Management and the Society for Historic Archaeology have maintained and continually updated a site called “Historic Glass Bottle Identification & Information Website.” All descriptive terms for glass bottles and all date ranges for manufacturing techniques were taken from this source, unless otherwise noted (referenced as BLM/SHA 2013). As the website is continually updated, page numbers or URL addresses for specific terms/dates are not given in this section, as these pages change frequently, but general chapter headings are provided, which allow researchers to find the general area of the information used. A researcher can also access the glossary page, which has links to specific pages where bottle attributes and their dates are discussed in greater detail.

The glass bottle website generally deals with attributes for American and Canadian made utilitarian bottles (common bottles for low-cost items). The website notes that date ranges for specific manufacturing improvements may be different for bottles made in other parts of the world. As noted on the website (BLM/SHA 2013\_FAQs, page 5), new bottle manufacturing techniques, especially from 1890 to 1920, were introduced or adopted more quickly in North America. Along similar lines, older, more labor-intensive methods were abandoned more quickly in North America than in other parts of the world. These facts mean that a manufacturing technique no longer used for North-American-made bottles could still be present in Europe or Asia twenty or thirty years later.

The country in which the bottles were made cannot be determined for the majority of the fragments, or even for most complete bottles. The manufacturing date ranges for the bottles are presented in the following tables with the assumption that the bottles are American/Canadian made. This assumption is not a far-reaching one, as the non-American glass manufacturers who did export business into North America had to compete with the North-American companies, and thus were some of the European/Asian companies that also quickly adapted new methods.

The European/Asian glass companies that lagged behind in new technological methods, but still exported their bottles to North America, tended to be the companies dealing in specialty, high-cost goods such as wine, champagne, gin, and sake. This appears to be especially true for countries who exported the square-tapered bottles called “case gins,” which were still free-blown by European manufacturers into the 1920s (BLM/SHA 2013\_Bottle Typing/Diagnostic Shapes). This difference in age ranges between North American and European glass manufacturers is of special interest to the current project, as the only bottles with pontil marks (associated with mouth-blown bottles) are found specifically on case gin bottles (Figure 30). A mouth-blown case gin bottle of American manufacture would most likely pre-date 1860, meaning that the pontilled bottles collected during the present project would be the oldest glass bottles in the artifact collection. However, these bottles are thought to be European imports, and thus may actually date as late as the 1920s.



Figure 30. Case gin bottle base with pontil mark on right (Acc. # 227A-A-5)

#### 4.2.1 Manufacturing Techniques

There are three major technological divisions in the manufacture of glass bottles. From antiquity, bottles have been free-blown (mouth-blown using a blowpipe and no formal mold). In the United States and Canada, free-blown utilitarian bottles generally pre-date 1860. Free-blown utilitarian bottles can generally be characterized by an asymmetrical body, a crude lip (top), and a pontil mark on the base. The bottles were blown with a blowpipe and then held steady on a

pontil rod so that the glassmaker could finish the lip by hand. This finishing process left a mark or groove, called a pontil, on the base of the bottle. Depending on the type of rod tip used, the pontil mark can be a deep indentation, a scar of rough glass fragments, or a deposit of iron. All of these marks tend to be rough to the touch. Near the end of the free-blown-glass era, a snap case or sabot was used to hold the bottle. This new technique did not leave any rough marks on the base. Therefore, although almost all pontil-marked bottles are free-blown (with some specific exceptions), there are also free-blown bottles without a pontil. As noted above, only two case gin bottles from the historic artifact collection had pontil marks and can be definitely identified as free-blown bottles (BLM/SHA 2013\_Body & Seams). The majority of the bottles from the HHCTCP collection postdate this free-blown glass period. Instead, they are either mouth-blown in a mold (mold-blown) or they are machine-blown.

For all these methods, the glassmaker uses a blowpipe to the mouth, even during the second major manufacturing period, the North American mold-blown period, from ca. 1800 to 1920. During this period, the common method calls on the artisan to blow the base of the bottle into dip molds, during the early years. Later in the era, the artisan would blow the base into more elaborate two- or three-piece (or more) metal molds, with different sections for base, body, and shoulder/neck. A column in each of the glass bottle tables holds data regarding the type of mold seams on each bottle (See BLM/SHA 2013\_Body and Seams). If there is a dash in that column, it means that the fragment was too small (or not a distinguishable enough portion) to determine the type of mold seam. In some cases with larger fragments or whole bottles, no seams are present. A free-blown bottle does not have a seam, but a specific type of mold-blown bottle may also not have a seam. Between 1880 and ca. 1920, bottles were made in a turn-mold in which a bottle was twirled within a special mold to eliminate the mold lines. This twirling action usually produced horizontal striations on the bottle, a characteristic used to identify turn-mold bottles. Mold-blown bottles from the HHCTCP collection, where the type of mold could be identified, were made in a 2-piece cup mold (post-1870s), a 2-piece post-mold (post-1840s), a 3-piece mold (post-1815), or a turn mold (1880-1920).

The lip of the mouth-blown bottle was still finished by hand by the glass worker, which means the mold seams on these bottle ends somewhere to or below the lip of the bottle. The type of lip (general shape) is recorded as an attribute, but most lip types do not have a narrow date range. However, the lip finish, the method in which the lip was completed, did change within the mold-blown period. The first lips were made by the application of new glass to the mouth of the bottle and manipulated with a finishing tool; these are called “applied lips,” which are found on bottles dating from the 1820s to the 1890s. These lips are often crude-looking and asymmetrical, with a slight ledge or line inside the bottle bore and drips of glass below the lip. A later finish is the “tooled lip.” No additional glass was added, and the bottle was reheated and manipulated with an improved finishing tool. These lips are symmetrical and do not have drips or a ledge inside the bore. This type of finish was used from the 1880s to the end of the mold blown period, ca. 1920 (for American/Canadian bottles) (BLM/SHA 2013\_Finishes and Closures).

Bottles began to be blown in semi-automatic machines as early as 1898. In 1903, Michael Owens invented a fully automatic machine to blow the bottles from the base to the lip. These bottles, called ABM bottles for the Automatic Bottle Machine Owens invented, have two side mold seams running vertically from the base to the neck, up to and over the lip (referred to as an

ABM lip). Wide-mouthed jars with an ABM lip postdate 1903, and narrow-mouth bottles with an ABM lip postdate 1907 (BLM/SHA 2013\_Glassmaking & Glassmakers).

#### 4.2.2 Colors

The colors of the bottle/bottle fragments found in this study also were recorded. During the mold-blown and machine-blown periods, a variety of colors were used. Typically color is not a precise indicator of date of manufacture. Many early bottles, especially those used for alcoholic beverages (spirits) were made of a dark green/olive colored glass. In some cases, the green glass is so dark it looks almost black. These “black” bottles tend to date to the free-blown and mold-blown periods before 1890. True clear or colorless glass was made after 1820, but it was relatively uncommon until 1870. Clear glass with an amethyst tint, due to the addition of manganese, dates from 1880–1920 (BLM/SHA\_Colors).

#### 4.2.3 Labels

Information on the contents of the bottle, the brand name of the product contained within it, and the name of the glass bottle manufacturer can often be found on the bottle. The information could be on paper labels but could also be worked into the bottle itself. Embossing or raised letters formed in the bottle molds were used on bottles as early as 1809 in America, but this practice was fairly uncommon until 1865. Paper labels were generally used after 1850, but the paper labels on bottles generally do not survive in most types of refuse deposits. “Applied Color Labels” (ACL), which fused pigments directly onto the bottle were invented in 1933. This process was much less expensive than embossing, and on common bottles, such as for beers and sodas, ACL labels generally replaced the older embossed labels in the 1930s and 1940s. All embossed or ACL lettering on the bottles is repeated in the Comments section of the following report, with a slash (/) representing a line division. For instance, the embossed letters on the bottle in Figure 31 would be recorded as 64 / D270 / 45.

Many bottles can be dated by the brand information after research on the specific company that produced the product. There are several authors used for this research for the current report, such as Richard Fike (1987) for medicine bottles, Betty Zumwalt (1980) for condiment bottles, Rex Elliott and Steven Gould (1988) for embossed Hawaiian mold-blown bottles, and Jim Millar (1988) for machine-made Hawaiian soda bottles. Millar’s book is unpaginated, although the photographs of bottles are numbered sequentially for each island. Citations for Millar’s book include the island and photograph number (e.g. Millar 1988\_Oahu 132). The internet is also a great resource for company information, especially the more reliable sites, such as the companies’ own websites.

Bottles can also be dated based on company histories of the glass manufacturer. Several glass companies marked bottles with their names or initials or with a logo, usually found on the heel or base of the bottle. Some companies even provided the year a bottle was made, including one of the largest companies, the Owens-Illinois Glass Company, which marked the heel or base with their logo (the letter I inside an O inside of a diamond). The numbers included to the side of or below the logo indicate the date the bottle was manufactured (see variation in Figure 31). New ways of marking dates on the bottles sometimes overlapped with earlier ways.

Most often, the logo was printed with numbers on the left for the number of the plant, numbers below for the mold, and numbers on the right for the date. From 1930 to ca. 1946,

single digits often were used by this company. Therefore, bottles with the single-digit numerals 0 to 6 to the right of the icon indicate a date in the 1930s or 1940s (i.e., the digit 3 means the bottle was made in 1933 or 1943). A single 7, 8, or 9 means the bottle was made in 1937, 1938, or 1939.

Bottle researcher Bill Lockhart (2004a:25) states that in the 1940s, often a period was added after the single numeral to indicate a 1940s date, but this period mark can be difficult to see. In 1940, the Owens-Illinois company began to emboss the base of bottles with numerous dots, a process called stippling. In the same year, they also invented a new type of durable glass, called Duraglas, a term also often embossed on their bottles. Thus, if a bottle has a single digit and has stippling or the word Duraglas, then it is a 1940s bottle, not a 1930s bottle (BLM/SHA\_Glossary). A double digit indicates a date from 1943, although double digits did not become the standard method until 1947.



Figure 31. Owens-Illinois Glass Co. mark on stippled base, indicating a manufacturing date of 1945 (Acc. # 064-A-14)

The most comprehensive reference text for glass manufacturer marks is Julian Toulouse's (1971) *Bottle Makers and Their Marks*. Over the years, many bottle researchers have noted errors or missing information in this book. The Bottle Research Group, headed by Bill Lockhart, has printed a series of articles in the journal *Bottles and Extras*, the official publication of the Federation of Historical Bottle Collectors, correcting and expanding on Toulouse's work. These articles, called "The Dating Game," are reprinted in a section of the BLM/SHA site (2013\_Glassmaking & Glassmakers). David Whitten (2013) used the information from books and from the internet to create an easily navigable list of glass marks on his internet site.

Whitten's 2013 work is often used in this report as a reference for glass maker's marks, but, as noted, the information may have originated in an earlier work.

Other information on bottles, mandated at different times by federal law, can also be used for dating. During prohibition, bottles had to have the words "Federal Law Prohibits Sale or Reuse of this Bottle." The Pure Food and Drug Act of 1906 required the ingredients to be noted on bottles (or in the packaging), which led to the end of some of the more fraudulent and dangerous patent medicines. The Pure Food and Drug Act Amendment of 1913 required bottles to contain volume information. "No Deposit No Return" is embossed on bottles after 1940. These and other kinds of label information were used to narrow date ranges on bottles of the early twentieth century.

#### **4.2.4 Deposition Lag**

Although the manufacturing date of a bottle can often be determined, the date of its shipment to Hawai'i, the date of its purchase by a customer, and the date the item was thrown away and becomes part of a refuse or fill layer may be years after the bottle was made. For utilitarian bottles, T. Stell Newman (1970:71) has suggested a lag period of 10 years between manufacture and discard. Lockhart (2010:18) has suggested that for popular brands of soda bottles, the deposition lag may be as low as five years. The deposition lag for historic artifacts in Hawai'i may be longer, as mainland manufacturers often sent older stored goods to Hawai'i, and Hawai'i retailers likely kept inventory items for a longer duration before they were sold.

### **4.3 Ceramic Vessels**

Ceramic vessels were analyzed for basic descriptions such as shape, paste, color, and designs. Shapes are designated as "flatware" (e.g., plates, shallow saucers, etc.) or "hollowware" (e.g., bowls, cups, etc.). When the fragment was too small to determine the general shape, the item is listed as "tableware" or "unknown." The Florida Museum of Natural History (2013) maintains an internet site with a visual guide to historic ceramics. The website was used as the basis for attribute descriptions for paste, ware, background color, glaze, decoration, design motif, and rim motif. Their ceramic identification site divides paste type into "earthenwares," "stonewares," and "porcelains." Other researchers, such as Riley et al. (1995:104) and Lebo (1997:G-13) have used a fourth term for certain types of Chinese and Japanese wares, "porcellaneous stonewares." Some researchers prefer the term "semi-porcelain" (e.g., University of Montana 2013) for these ceramics, and others reject alternative terms and continue to use the term "porcelain" (Ross 2012a:14–15). The Florida Museum of Natural History (2013) guide, also used for this project, describes these wares as "porcelain"; therefore, this is the term used in this report.

#### **4.3.1 European and American Earthenwares and Stonewares**

The majority of the material from the HHCTCP artifact collection seems to date from the late nineteenth century to the early twentieth century. Thus, early Euro-American wares, such as creamwares and pearlwares, were not observed in the HHCTCP ceramic collection. Most of the Western wares in the assemblage are refined earthenwares, including both whitewares and higher-fired white ironstones (denser) common from 1840 to the present (Lebo 1997:3). Both exhibit a white paste and a transparent glaze. Also present are a small number of yellowwares (yellow or buff matrix, usually with a transparent glaze) and both German and British stoneware



containers. The whitewares and yellowwares described in the tables have a transparent lead glaze unless otherwise noted in the "Decoration" table column.

The identification of the country of origin for the European and American ceramic vessels is based mainly on maker's marks, usually found on the base of dishes. The date ranges for these marks can be identified by reference sources such as Godden's (1964) *Encyclopaedia of British Pottery and Porcelain* and Lehner's (1988) *Encyclopedia of U.S. Marks on Pottery, Porcelain, and Clay*. There is also an excellent internet site on English Staffordshire potteries and their marks (Stoke-on-Trent 2013), which gives company histories, maker's marks, and types of wares for a large number of English pottery companies.

Euro-American stonewares consist mainly of British and German bottles. The British stoneware bottles have a two-tone tan/cream Bristol glaze and mostly date from around 1835 to 1900. Some later ones were made in America and are designated in the tables as Anglo-American (Florida Museum of Natural History 2013). Stoneware bottles with a dark brown salt glaze were made in Germany and usually contained mineral water or ale (Lebo 1997:G-11). They were popular into the 1920s, when their manufacture declined markedly due to competition with glass bottles (Lockhart 2010:98).

Ceramics manufactured in Europe or North America in the collection include both undecorated and decorated whitewares and ironstones, including vessels with transfer print patterns, with hand-painted bands, large florals, and/or cut sponge motifs, as well as a few with decalcomania patterns (post-1880) or with colored "Fiesta" glazes popular after 1930 (see Lebo 1997:G-7–G-9). Ironstones frequently were undecorated or had molded motifs. Examples with manufacturing stamps on the base provide the few narrow-range dates listed in the tables. Most of the ironstone vessels identifiable to country were made in England. One porcelain cup was made at an American pottery (Acc. #64-A-2). One special pattern found on several fragments was a painted thick-line polychrome floral design referred to in Hawai'i as the "Lokelani [Heavenly Rose]" pattern (Acc. #s 101-A-2, 128-A-1, 130-A-2, 148-A-2, and 231A-1-4). These were popular in Hawai'i in the late nineteenth century to the early twentieth century (Kirch 1985:316; Severson et al. 2002:278).

#### 4.3.2 Asian Wares

In a study of historic ceramic artifacts from an Asian community in Walnut Grove, California, the archaeologists compared ceramics from Chinese and Japanese house lots from the 1880s to 1915 period. They found that each community preferred to use wares from their own homelands, and thus they were easily able to separate most of the types of ceramics used by each group (Costello and Maniery 1988:16).

The Chinese wares were usually cobalt blue hand-painted underglaze vessels or overglaze polychrome wares. These are called "tz'u" wares or "Kitchen Ch'ing" wares, which were most commonly made and exported to America from 1644 to 1911 (Lister and Lister 1989:48). The ceramics were made with a variety of motifs, listed by Lebo (1997:G-14–G-15) in her report on the Honolulu Harbor Court ceramics. The patterns on these wares include those called Allah (Chrysanthemum, Sino-Islamic Allah), Double Happiness (Swirl), Four Flowers (Four Seasons, Rose Verte), Fu, Kakiemon (Rocks and Orchid, or Prunus), Om (Sino-Sanscrit Om), Peach and Fungus (Birthday, Immortals' fungus birthday congratulations bowl), Sweet Pea (Shanghai



Ware, Simple Flower), Snail, Bamboo (Three Circles and Dragonfly, Three Circles and Butterfly, Three Circles and a Dragonfly, Swatow Ware, Blue Flower Ware, Longevity), and Celadon (Winter Green). The University of Montana (2013) maintains a site with numerous photographs of these different motifs. Several of these motifs were identified in the HHCTCP artifact collection. Examples from the current collection are shown in Figure 32 to Figure 39.

The most common Chinese types in the HHCTCP collection were “Four Flowers,” “Bamboo,” and “Sweet Pea” (Figure 32 to Figure 34). Also found were two fragments (same vessel) with an “Om” design and one fragment with an “Allah” motif in T-119A (Figure 36 and Figure 37).

The Japanese ceramics were transfer print porcelains (Figure 38) of the Meiji Period (1868–1912), usually the type called “Dashed Lines,” as dashed lines outline major design elements made with patterned dots (Costello and Maniery 1988:25). These transfer print patterns were made with paper stencils, a decoration-making method used until the end of the eighteenth century and then revived in the 1870s. This type of decoration technique went out of style in Japan by approximately 1920 (Ross 2012a:5, 7).

There also were some types of ceramics common to both Chinese and Japanese. Vessels with a light green celadon or “wintergreen” glaze have been found at both Chinese and Japanese overseas sites. The porcelains with a celadon glaze (Figure 35) were originally thought to have been manufactured exclusively in China, but one researcher (Stenger 1993:315) who studied the chemical composition of the glazes suggests that the wares were made in Japan and then exported to China and the United States. Other researchers still believe that both countries made these types of wares. Ross (2012a:19), although noting that additional research is needed, has reported that the two may be distinguished: Chinese celadon vessels are a pale bluish green with blue painted characters on the dish bottom, while Japanese celadon wares are a brighter, glossier green, often painted with polychrome enamels. In most cases, the origin (manufacturing location) of these vessels in this report is listed as “Asian,” rather than as Chinese or Japanese.

Chinese stoneware vessels also were noted in the collection. The Chinese stoneware vessels usually have a dark brown slip glaze (Figure 39) found on wide-shouldered food jars, spouted jars for soy sauce and other liquids, and storage vessels (Lebo 1997; Lister and Lister 1989).

Historic Honolulu was unlike historic Walnut Grove, California, in that there were no distinct Chinese city blocks versus Japanese city blocks. In addition, Goodwin and Allen (2005:260) have suggested that Hawaiians, and even some Caucasians, also bought and used these inexpensive Chinese and Japanese wares. Therefore, the location of the manufacturer is listed under “Origin,” but the presence of these Asian wares in a deposit does not give any indication of the ethnicity of the purchaser or user. In most of the deposits, Chinese, Japanese, and Euro-American wares are mixed in the same stratum and might originate from the same neighborhood or household.



Figure 32. Chinese porcelain bowl, painted overglaze “Four Flowers” motif (Acc. # 104-A-1)



Figure 33. Chinese porcelain rice bowl, painted underglaze “Bamboo” motif (Acc. # 202A-A-1)



Figure 34. Chinese porcelain liquor warmer, painted underglaze “Sweet Pea” motif (Acc. # 138-A-5)



Figure 35. Asian (Chinese or Japanese) celadon glaze porcelain rice bowl (Acc. # 053-A-1)





Figure 36. Chinese porcelain dish with painted underglaze “Om” motif (Acc. # 119a-A-1)



Figure 37. Chinese porcelain dish with painted underglaze “Allah” motif (Acc. # 119a-A-1)



Figure 38. Japanese transfer print “Dashed Line” porcelain rice bowl (Acc. # 132-A-10)



Figure 39. Chinese brown glazed stoneware spouted shoyu jar (Acc. # 132-A-13)

No exact dates for the importation of the Asian wares to Hawai'i is known at this time. As noted above, some of the Japanese stenciled wares appear to date from the 1870s to the 1920s. Lister and Lister (1989:48) note that the Double Happiness motif is usually found on California Chinese community sites dating before 1880, that the Three Circles and Dragonfly motif (Bamboo) are found in the early part of the 1860–1900 period, and the Four Seasons and celadon dishes are usually found in the later part of the 1860–1900 period. However, Lister and Lister (1989:53) caution that Chinese ceramic styles are “notably long-lived” and that some styles, especially the Four Seasons and Celadon types may have been exported to America into the mid-twentieth century. Chinese stoneware jars are still made today using traditional brown glazes and traditional vessel forms.

Two Asian bowl fragments in the HHCTCP artifact collection have a “Made in Japan” mark on the base. In 1891, the United States passed the McKinley Tariff, which stated that all imported goods had to be stamped with the country of origin. Pottery from Japan and China after this date is often stamped “Japan” (or “Nippon”) or “China,” but there also were unmarked pieces. After 1921, “Nippon” was no longer used for Japanese goods, and most wares were stamped “Japan” or “Made in Japan,” while Chinese exports were stamped “Made in China” (Ross 2012a:5). However, some unmarked pieces slipped through customs, and some exceptions were made for some types of wares. Therefore, lack of a “Made in” stamp is not definite proof that the vessels pre-dates 1921, and a “Made in Japan” mark is sometimes found in archaeological contexts before 1921. However, the extremely small number of vessels with a “Made in Japan” stamp likely indicates that most of the Chinese and Japanese ceramics were purchased in the pre–1920s period. This assumption accords well with the bottle dates for the collection, which generally indicate a 1870s to 1920s manufacturing date range.

#### **4.3.3 Deposition Lag**

Unlike bottles, ceramics are not thrown away once the contents are used. Instead, they are kept and reused, sometimes even handed down through generations within a family. This tradition is particularly true of the Euro-American wares, which were moderately to fairly expensive in the late-nineteenth and early-twentieth centuries. However, this may not pertain equally to the Asian wares, which were inexpensive, mass-produced items. The Euro-American and Asian wares in the collection generally date to ca. 1870s–1920, similar to the age ranges of most of the bottles.

### **4.4 Miscellaneous Artifacts**

The origin and manufacturing date of the majority of the miscellaneous artifacts could not be determined. For example, none of the tobacco pipe stems were marked with the country of origin. Dating tobacco pipe stem bores is considered to be unreliable after 1780 (Pfeiffer 2006:33).

Several artifacts types (i.e., nails, bricks, and shoes) have, however, been standardized, or the artifacts are components of a historic entity (i.e., OR&L railroad, Honolulu streetcars). A discussion of the criteria used to determine manufacture dates of each standardized artifact type or historic entities is presented, followed by a discussion of the difficulties associated with dating and determining the origin of specific artifacts. These discussions are followed by summaries of the artifacts whose manufacture date cannot be determined.



#### 4.4.1 Footwear

IMACS (Intermountain Antiquities Computer System) (1992) summarizes the following dating methods for shoes. Before 1812, wooden pegs were used to attach the upper portion of a shoe to the sole. Square nails replaced wooden pegs after 1812. Shoes with any type of metal fastener post-date 1829, and athletic-style, laced fabric shoes with rubber soles were first manufactured in the 1850s. Shoes with all-rubber heels date to 1895 or later. A shoe lacking nail holes indicated that it was glued and therefore dates to post-1926 and, conversely, shoes with many holes indicated a pre-1926 manufacturing date (IMACS 1992). Two examples of pre-1926 footwear (Acc. #s 130-A-20 and 132-A-59) and three examples of post-1926 footwear (Acc. #s 136-A-3, 137-A-5, and 203-A-1) occur in the HHCTCP historic artifact collection.

#### 4.4.2 Toothbrushes

Parts of four toothbrushes occur in the HHCTCP historic artifact collection (Acc. #s 139-A-1, 148A-A-8, 168B-A-4, and 202A-A-7). Toothbrushes were used in China as early as the fifteenth century, but the common form of the toothbrush used today was invented in England in 1780 (Mattick 1993:162). The four toothbrushes, three handles, and one head fragment were all made of bone, the most common material for brush handles up to the end of the nineteenth century. Celluloid brushes began to be made as early as 1869, and celluloid, along with other synthetic materials, almost completely replaced bone as the handle/head material by the 1940s. Mattick (1993:182) has attempted a preliminary analysis of developmental changes in toothbrushes from the 1700s to the 1950s. Two attributes that provide some definite date ranges are the number of holes/number of rows and the presence of a hole in the handle end. Before ca. 1890, brushes tended to have four or five rows of holes, with about 21 holes per row. From 1890 to 1910, brushes had three or four rows, with an average of 17 holes per row. After 1910, a brush had three or four rows, with an average of ten holes per row. A toothbrush head from T-202A had four rows of holes with 19 holes per row, indicating that it was probably made before 1910. Two of the three brush handles had a single hole in the end of the handle. Toothbrush makers drilled a hole at the end of the handle, starting in 1884, to encourage people to hang up their brushes to dry thoroughly and thereby prevent the growth of bacteria (Mattick 1993:165). Thus the little information we have suggests that the HHCTCP toothbrushes date from the 1880s to the 1940s.

There is also a question of which ethnic group used these brushes. One of the toothbrush handles has three circles etched on one side. The three circle motif (probably a mark for good luck) has also been found on a toothbrush from a late nineteenth-century Chinatown site in Santa Fe, California (Douglas 2007:6). In the Market Street Chinatown Archaeological Project, San Jose, California, Euro-American toothbrushes had holes in the head that did not go all the way through (called trepanning), while Asian toothbrushes had holes that did go all the way through the bone head so that bristles could be removed and replaced (Stanford Archaeological Center 2003). One of the toothbrushes in the artifact collection has the trepanned form, suggesting that it was Euro-American. However, Ross (2012b:43) has shown that Overseas Japanese communities not only bought exported toothbrushes from the larger makers, such as France and Japan, but also bought locally made (American) toothbrushes, so this is not necessarily an indicator that the user was non-Asian.



#### 4.4.3 Marbles

Marbles have been manufactured since early times from a variety of materials including stone, clay, limestone, agate, porcelain, and most recently glass. In Hawai'i, children traditionally used the indigenous *Caesalpinia bonduc* seed as a marble; in Ni'ihau the plant is known as “*kinikini*” which means marbles (Wichman and St. John 1990:93). Before 1850, the majority of limestone and ceramic marbles were produced and exported by Germany. Beginning in the mid-nineteenth century, Germans also produced glass marbles for export to the United States. Britain was the only other country producing glass marbles, but apparently only for domestic use. By 1880, German-made marbles supplied to the United States also included porcelain, stone, and clay. In the 1880s, several small companies in the United States began manufacturing clay marbles, called “commies” because they were so common, and handmade glass marbles. In the early twentieth century, the production of machine-made American glass marbles began. By 1920, they had generally replaced the manufacture of hand-made glass marbles. American-made marbles dominated the domestic market from 1920 until the 1950s, when Japan introduced cat's eye marbles, producing millions of marbles each year. Imports from Japan directly led to the closure of most American marble manufacturers (Carskadden and Gartley 1990; Webb 1994).

Designating a manufacture date as well as a manufacture location for a single marble is very difficult because both hand-made glass and machine-made clay marbles continue to be produced today. Glass marbles might also be Codd bottle stoppers that were removed by breaking the bottle. Codd bottles were patented in 1870 (Elliot and Gould 1988:20–21) and were used by Hawaiian soda companies from approximately 1868 to 1918 (Munsey 2010a). No datable marbles occur in the HHCTCP historic artifact collection.

#### 4.4.4 Nails

IMACS (1992) also summarizes nails based on several criteria. Nail head details and profile or thickness variations aid in distinguishing the differences among types. Hand-made wrought nails are the earliest nails made in America, generally dating to pre-1800. Wrought nail shanks are rectangular shaped with a variable thickness that tapers to a point. The nail is topped with a round or rectangular head that might be lettered. Machine-cut nails date from as early as ca. 1790 to as recently as the mid-1920s. These types of nails generally date from 1835 to 1890, although some are still made today (Middle Tennessee State University 2002). Such nails can be readily distinguished from wrought nails by the consistent thickness of their shafts. Machine cut nail heads are rectangular or square shaped. One machine-head cut nail (Acc. #96-A-17) was pried from one section of privy wood in T-096.

Wire nails are the most recently produced nails, manufactured in America from ca. 1850 to the present. They have round heads with consistently shaped shanks and exhibit little change over time. Thus, distinguishing early wire nails from modern wire nails is very difficult (IMACS 1992). Wire nails were first imported to Hawai'i by E.O. Hall and Son in 1894 (Hurst and Allen 1992 in Lebo 1997:112).

#### 4.4.5 Rail Spikes

The majority of rail spikes collected are believed to be from Oahu Railway and Land Company Co. (OR&L) rail tracks, particularly those from the East Kapālama and Iwilei areas.

One terminus of the railroad on the leeward side of O'ahu ended at the King Street depot in Iwilei; it did not extend through Honolulu, Kaka'ako or Waikīkī. Rail spikes and a portion of track found in Kaka'ako Makai and Kewalo may also be from the Honolulu Rapid Transit & Land Company, Ltd. which operated a streetcar system in the central Honolulu District from Honolulu to Waikīkī. The OR&L railway was constructed in 1889, and the rail line was abandoned for the most part by 1947 (Chiddix and Simpson 2004). Tracks extended west from the King Street depot to Pearl Harbor and Waianae and to points north including Schofield Barracks and Kahuku. Construction of Honolulu Rapid Transit system tracks began in 1898; by 1933 all of the tracks were removed (Simpson and Brizdle 2000:43, 124). The system extended along King Street from Fort Shafter to Koko Head Avenue in Kaimukī with lines extending *mauka* on Nu'uanu Avenue and into Mānoa Valley. The Waikīkī branch extended *makai* along McCully to Waikīkī Road, today's Kalākaua Avenue, to the base of Diamond Head. Metal rails (I-beams) and numerous yellow bricks and brick fragments were encountered within Feature 28 of SIHP #-2918 (T-226D, located in the west-bound turn lanes of Punchbowl Street before the Ala Moana Boulevard merge). These metal rails may represent remnants of the Honolulu Rapid Transit system or a localized track system.

#### 4.4.6 Bricks

Brick sizes have been standardized by the National Brick Manufacturers Association of the United States [NBMA (Meide 1994)]. In 1884, common bricks measured 8 1/4 x 4 x 2 inches. By 1889, another standard was used: 8 3/8 x 4 x 2 inches. In 1918, standards for the three different types of bricks, common bricks, face bricks, and paving bricks, were set. However, a 1922 American brickyard survey reported that "78 different sizes...and various other discrepancies abounded" (Meide 1994:13). Size differences also were prevalent in comparisons of different parts of the United States; therefore, although manufacturing date ranges based on brick sizes are listed in the tables, these are not considered completely solid date ranges, since regional variations were still quite common. The criteria used to determine age for all the American machine-made bricks are based on Meide's (1994:25) compilation of NBMA brick sizes as well as other standard sizes presented in his Table 4. Many of the machine-made bricks were fragments, and thus did not conform to NBMA sizes. In addition to the machine-made bricks, two bricks appeared to have been made in a mold. The mold method of brick making spans from the late 1600s to the present (Meide 1994:8), so their manufacture date is uncertain.

## **4.5 Artifact Analysis for West Kalihi (Test Excavations 001 through 020 and 020A)**

One test excavation (T-018) of the twenty test excavations in West Kalihi contained one historic artifact.

### **4.5.1 Ceramic Vessels**

No ceramic vessels were collected from West Kalihi.

### **4.5.2 Glass Bottles**

One glass bottle (Acc. # 018-A-1) was collected from West Kalihi, a soda bottle from T-018, Stratum Ie. It was a complete, light green, round glass soda bottle (18.5 cm high, and 5.6 cm in diameter) made in an Automatic Bottle Machine (ABM) post-1907. Embossed on the shoulder are the words "Liberty" and "6 OZ. NET CONTENTS." On the base are the letters "LBW" noting that the bottle was filled at Liberty Bottling Works of Wahiawā on O'ahu. Although research was conducted for this soda works, little information on the company could be found. Only one siphon (bar) bottle with the name "Liberty Bottling Works" etched into the glass is shown in Elliott and Gould's book on early Hawaiian bottles (1988:170). They date this bottle to the mid-1920s. No soda bottles for this company are shown. The Liberty Bottling Works most likely originated in the 1920s but did not have embossed soda bottles in this period. Bottles dating from the 1940s to 1950s for Liberty Bottle Works are shown in Millar's book on Hawaiian machine-made soda bottles. The bottle is similar to one bottle dated to 1946 in Millar's book (Millar 1988: Oahu 123). Later 1940s to 1950s bottles have ACL lettering rather than embossed labels; thus, the bottle in T-018 likely dates from the 1930s to the mid-1940s.

### **4.5.3 Miscellaneous Historic Artifacts**

No miscellaneous historic artifacts were collected from West Kalihi.

### **4.5.4 Summary of Artifact Assemblage from West Kalihi**

Only one historic artifact was collected from West Kalihi, Test Excavations T-001 through T-020A. One glass soda bottle from T-018, Stratum Ie was collected. The glass bottle was made for the Liberty Bottling Works of Wahiawā, likely dating from the 1930s to the mid-1940s. The bottle was likely deposited as part of domestic refuse.

## **4.6 Artifact Analysis for East Kalihi (Test Excavations 021 through 047)**

Four historic artifacts were collected from three of the 27 test excavations in East Kalihi, T-031, T-034, and T-037.

### **4.6.1 Ceramic Vessels**

No ceramic vessels fragments were collected from East Kalihi.

### **4.6.2 Glass Bottles**

No glass bottles were collected from East Kalihi.

### **4.6.3 Miscellaneous Historic Artifacts**

Four miscellaneous artifact fragments were collected from East Kalihi, an unglazed ceramic flower pot/planter fragment from T-034 (Acc. # 034-A-1), two flowerpot/planter fragments from T-037 (Acc. #s 037-A-1 and 037-A-2), and a metal rouge compact (Acc. # 031-A-1) made for the Helena Rubenstein cosmetic company from T-031. Helena Rubenstein began selling her face cream, called Crème Valaze, as early as 1902 in Australia. Not long after, she opened a beauty salon and began to market a variety of cosmetic products all over the world (Biography.com 2013). The Valaze trademark with a picture of two women was first used in 1914 (U.S. Patent Office 1947\_Trademark 430, 232). A rouge/blush compact with the “Valaze” name was patented in 1926; however, this compact was made and sold into the 1940s.

### **4.6.4 Summary of Artifact Assemblage from East Kalihi**

Historic artifacts were collected from two of the 27 test excavations in East Kalihi. One cosmetic compact, dating to the 1920s–1940s, was collected from T-031, and three flower pot/planter fragments were collected from T-034 and T-037.

Table 5. East Kalihi, T-031, Miscellaneous Artifacts

Acc. # 031-A-	Provenience	Type	Material	Portion	No.	Measurements	Description
1	T-031, St. Ic	Cosmetic compact	Metal	Complete	1	4.0 (D) x 1.0 (H) cm.	Engraved; two women facing each other on front; "VALAZE" engraved on back; "HR" on one side; "HELENA RUBENSTEIN" on side; age: 1930s-1940s

Table 6. East Kalihi, T-034, Miscellaneous Artifacts

Acc. # 034-A-	Provenience	Type	Material	Portion	No.	Measurements	Description
1	T-034, St. Ib	Flower pot/planter	Ceramic	Base to rim	1		Base to rim fragment, unglazed

Table 7. East Kalihi, T-037, Miscellaneous Artifacts

Acc. # 037-A-	Provenience	Type	Material	Portion	No.	Measurements	Description
1	T-037, St. Ib	Flower pot/planter	Ceramic	Body	1		Body fragment, unglazed
2	T-037, St. Ib	Flower pot/planter	Ceramic	Body	1		Body fragment, unglazed

## **4.7 Artifact Analysis for West Kapālama (Test Excavations 048 through 053)**

One historic artifact (four fragments) was collected from one of the six test excavations, T-053, in Kapālama West.

### **4.7.1 Ceramic Vessels**

Four small fragments of a porcelain bowl (Acc. # 053-A-1) were collected from T-053, Stratum II in West Kapālama. The fragments belong to a single Asian rice bowl with a celadon (winter green) glaze and blue characters painted on the base. Costello and Maniery (1988:34), in their study of a late nineteenth or early twentieth century (ca. 1880s–1915) Asian artifact collection from Walnut Grove, California, found these types of bowls in the Chinese section of town, although they believed they could also be Japanese. Ross (2012a:2019) has suggested that these plain types of celadon vessels are Chinese. The characters could be the name of a pottery, the potter, or a saying.

### **4.7.2 Glass Bottles**

No glass bottles were collected from West Kapālama.

### **4.7.3 Miscellaneous Historic Artifacts**

No miscellaneous artifacts were collected from West Kapālama.

### **4.7.4 Summary of Artifact Assemblage from West Kapālama**

Only one artifact was collected from West Kapālama, a broken Asian celadon-glaze rice bowl.

## **4.8 Artifact Analysis for East Kapālama (Test Excavations 054 through 084)**

Historic artifacts were collected from eight of the 31 test excavations in East Kapālama (T-060, T-061, T-064 through T-067, T-073, and T-082). A total of 119 fragments were collected, consisting of 23 ceramic fragments, 65 glass bottle fragments, and 31 miscellaneous fragments.

Historic artifacts were collected from one cultural resource: SIHP #50-80-14-7506, an incinerated trash deposit (T-064 Stratum Ic; T-066 Stratum Ic; and T-067 Stratum Ib).

### **4.8.1 Ceramic Vessels**

#### **T-064**

One Euro-American porcelain cup was collected from T-064 (Table 8). The porcelain cup was made by the American company Buffalo Pottery of New York. This company used the stamped “Buffalo China” mark, found on the base of the cup, from 1909 to 1914 (Lehner 1988:64).

#### **T-066**

Twelve fragments from a minimum of nine ceramic vessels were collected from T-066 (Table 9). These include two hollowware porcelain vessels with Asian motifs on the body and seven Euro-American earthenwares, three hollowwares, three flatwares, and one toiletry item (chamber pot or wash basin). The chamber pot/wash basin has a base stamp (Hall; Made in USA) for the Hall China Co. of East Liverpool, Ohio, which used this mark from 1903 to the 1970s (Lehner 1988:187). The letters “DESE” on one earthenware fragment could not be matched to any British or American company marks in reference books. A fragment of a Fiestaware vessel was manufactured after 1930.

#### **T-067**

Fragments of two utensils and one tableware vessel were collected from T-067 (Table 10). These consist of an Asian porcelain spoon with a hand-painted cobalt motif; a Euro-American whiteware slotted spoon; and a Euro-American whiteware tableware with a hand-painted blue motif, possibly a floral design. The tableware fragment was too small to identify the vessel form.

#### **T-082**

Seven ceramic fragments from a minimum of six vessels were collected from T-082 (Table 11). One of these had an Asian decoration (an outline of a baboon) with “Minida” stamped on the base; no information on this base mark could be found, but the markings also include “Made in Japan,” which was placed on Japanese export items sent to America after 1921 (Coxsackie Antique Center 2013). One Japanese plate/platter had a “Dashed Line” transfer print (made from the 1870s to the 1920s). The remaining fragments are from European whitewares, one with a blue edge-decorated rim.



Table 8. East Kapālama, T-064, Ceramic Vessels

Acc. # 064-A-	Prov.	Type	Portion	No.	Paste	Ware	Decoration	Rim Motif	Origin; Age	Comments
1	T-064, St. Ic, SIHP #-7506	Hollowware – cup	Complete	1	Porcelain		Polychrome small floral- painted underglaze	Green band	Euro- American, 1909-1914	Red roses, yellow daisies, green leaves, brown stems; on base in script “Buffalo China”; mark used from 1909-1914 (Lehner 1988:64)

Table 9. East Kapālama, T-066, Ceramic Vessels

Acc. # 066-A-	Prov.	Type	Portion	No.	Paste	Ware	Decoration	Rim Motif	Origin; Age	Comments
1	T-066, St. Ic, SIHP #-7506	Hollowware - chamber pot or wash basin	Body (2); base (1)	3	Refined earthenware	Ironstone	None	--	American, post-1903	“HALL” [in circle] / MADE IN USA” stamped in blue on base; Hall China Co., Ohio
2	T-066, St. Ic, SIHP #-7506	Hollowware - bowl	Base to rim	1	Refined earthenware	Ironstone	Light brown opaque glaze	Brown band	Euro- American	Stamped underside of base has green letters “DESE.../W...”
3	T-066, St. Ic, SIHP #-7506	Flatware - plate	Rim	1	Refined earthenware	Ironstone	--	Two green bands	Euro- American	
4	T-066, St. Ic, SIHP #-7506	Flatware – unidentified		1	Refined earthenware	Whiteware	--	--	Euro- American	
5	T-066, St. Ic, SIHP #-7506	Flatware	Rim	1	Refined earthenware	Whiteware	Relief molded on rim and cavetto	Relief molded	Euro- American	

Acc. # 066-A-	Prov.	Type	Portion	No.	Paste	Ware	Decoration	Rim Motif	Origin; Age	Comments
6	T-066, St. Ic, SIHP #-7506	Tableware	Rim to body	1	Refined earthenware	Fiestaware, yellow	Relief molded on interior	--	Euro- American, post-1930	
7	T-066, St. Ic, SIHP #-7506	Hollowware	Rim, body	2	Porcelain	--	Blue floral, painted underglaze	--	Asian	Asian design
8	T-066, St. Ic, SIHP #-7506	Flatware	Rim	1	Refined earthenware	Whiteware	Relief molded; polychrome floral, painted underglaze	--	Euro- American	Pink flowers, green leaves; burnt
9	T-066, St. Ic, SIHP #-7506	Hollowware - bowl	Base to body	1	Porcelain	--	--	--	Asian	High foot; Asian style

Table 10. East Kapālama, T-067, Ceramic Vessels

Acc. # 067-A-	Prov.	Type	Portion	No.	Paste	Ware	Decoration	Rim Motif	Origin; Age	Comments
1	T-067, St. Ib, SIHP #-7506	Serving utensil - slotted spoon	Body	1	Refined earthenware	Whiteware	--	--	Euro- American	Two prongs broken off
2	T-067, St. Ib, SIHP #-7506	Serving utensil - spoon	Body	1	Porcelain	--	Cobalt blue, possibly floral, painted underglaze	--	Asian	
3	T-067, St. Ib, SIHP #-7506	Tableware - unidentified	Base to body	1	Refined earthenware	Whiteware	Blue, possibly floral, painted underglaze	--	Euro- American	

Table 11. East Kapālama, T-082, Ceramic Vessels

Acc. # 082-A-	Prov.	Type	Portion	No.	Paste	Ware	Decoration	Rim Motif	Origin; Age	Comments
1	T-082, St. Id	Flatware - plate or platter	Rim	1	Porcelain	--	Blue, Dashed Line transfer print	Edge- decorated, geometric	Japanese, 1870s- 1920s	
2	T-082, St. Id	Hollowware - straight-sided cup	Base to body	2	Porcelain	--	Blue, image of a baboon; painted underglaze	--	Japanese, post-1921	Stamped on base blue circle with "Made in Japan Porcelain/Trade- mark Minida"; post- 1921
3	T-082, St. Id	Flatware - plate or saucer	Rim to body	1	Refined earthenware	Whiteware	--	Edge- decorated, blue	Euro- American	Blue edge-decorated rim
4	T-082, St. Id	Hollowware - poss. small bowl	Body to rim	1	Refined earthenware	Whiteware	--	None	Euro- American	
5	T-082, St. Id	Flatware - plate	Body	1	Refined earthenware	Whiteware	--	--	Euro- American	
6	T-082, St. Id	Hollowware - poss. small bowl	Base	1	Refined earthenware	Whiteware	--	--	Euro- American	

## 4.8.2 Glass Bottles

### T-060

One complete medicine bottle, for a drug store in Manila, Philippines, was collected from T-060, Stratum IIb (Table 12). The drug store was in business in the 1930s, but may have opened earlier (Galvez 2011:4).

### T-061

Two milk bottles were collected from T-061 (Table 13). One milk bottle is labeled New Fair Dairy, Kapahulu, and was found in Stratum If. Similar bottles also have the wording "Property of K. Yamashita." K. Yamashita is recorded as a dairy farmer as early as 1911 (Hawaii Board of Health 1911:149; also mentioned in Hawaii Board of Health 1928:56), and the New Fair Dairy is listed in a 1940 Hawaiian directory (Polk-Husted 1940:471). The second milk bottle, from Stratum Ig, is from the Honolulu Dairymen's Association, which was organized by several dairies on O'ahu in 1897. In 1959, this became Meadow Gold Dairies (Sigall 2004:224). This milk bottle was made by the Owens-Illinois Glass Co. in 1936 or 1946. It was collected from Stratum Ig.

### T-064

The T-064 collection consists of 12 glass fragments from a minimum of 12 bottles: four beverage (spirits, soda, mineral water, etc.) bottles, three beer bottles, one probable condiments bottle, two medicine bottles, and two cosmetic bottles (Table 14). Seven bottles have date codes on their bases, five for bottles made by the Owens-Illinois Glass Co., and two by the Anchor-Hocking Glass Co. The dates are 1936 or 1946, 1941, 1944, 1945 (5 bottles) and 1946. Several of the bottles have a continuous external thread for a screw-on cap; this attribute dates from the 1920s and later (BLM/SHA\_Bottle Finishes and Closures).

The three amber bottles were made in 1945 (two) and 1946 (one). They have stippled Duraglas bases, typical for beer bottles manufactured in and after 1940. The green soda bottle is a Seven-Up bottle manufactured in 1945 and bottled at the Sunrise Soda Works in Kalihi-Pālama (Oahu Picture 235 B in Millar 1988). The building for this works still stands in the Iwilei section of Kapālama, and has a date of 1825 painted on the front (see Google Earth 2008), presumably the foundation date of the company.

There are two medicine bottles. One is embossed H. Clay Glover Co., who was mainly known for introducing veterinary medicines (worming medicine for dogs, etc.), but in 1937 his company branched out into human hair products (Lockhart 2004b:36-37). The bottle from T-064 is dated to 1945, so it is probably for a shampoo or other hair product for humans. There is no brand information for the second medicine bottle. The dates for a clear glass cosmetic jar (brand - "Seventeen") and a white milk glass jar are unknown.

The remaining bottles/bottle fragments cannot be dated to a narrow date range. Two clear bottles are similar in shape to those advertised as "pill/tablet" bottles in early twentieth century glass manufacturer's catalogs, and one striated clear bottle is similar to those called "pickle and preserve ware" (Illinois Glass Co. 1906). It is possible that all of the bottles, from domestic refuse, in this test excavation date to the 1940s, and were discarded within a narrow time frame.

**T-065**

One soda Coca-Cola bottle body to base fragment was collected from the T-065 spoil pile (Table 15). This iconic “hobbleskirt” bottle design was first used by the Coca-Cola company in 1915 (Lockhart and Porter 2010:47). Although date codes are often found on the heels of Coke bottles, no embossed numbers were on the heel fragment from T-065.

**T-066**

Twenty-three (23) glass fragments from a minimum of eight bottles were collected from T-066, Stratum Ic (SIHP # -7506) (Table 16). A few of the bottles have some embossing that indicates the glass manufacturer. Most of these cannot be assigned a narrow manufacturing date range, as the small fragments do not contain enough information.

There are 13 clear bottles/fragments, which were manufactured after the 1870s; seven of these have an ABM lip on a narrow neck, which indicates they were made in an Automatic Bottle Machine (ABM) and post-date 1907. One bottle with an ABM lip has the “Federal Law Prohibits” warning used on bottles from 1935-1974.

Of the six that do not have an ABM lip, one bottle base is embossed with the letter G in a square, the mark used by the Glenshaw Glass Co., beginning in 1932. One clear soda bottle has an ACL label with the words “Delicious” and “DELAWARE.” Delaware Punch was a brand invented in 1913 (Wikipedia 2013a\_Delaware Punch); this brand was bottled by the Nesbitt Bottling Co. in Hawai'i. This company is now owned by the Coca-Cola Co., so the bottle probably was filled at one of the Coca-Cola bottling plants on O'ahu, possibly the former plant in the Kaka'ako area. The ACL labeling dates this bottle to post-1933. The remaining four do not have features that enable identification.

There are ten non-clear bottles/fragments; eight were manufactured after the 1860s and two could not be dated. Four of the non-clear bottles also have an ABM lip. One of these, a blue cobalt medicine jar, is embossed “VICKS.” The second, a light green jar, has a design patent number of 9248, probably for the shape of the jar. This design patent number was awarded in 1876 (U.S. Patent Office 1876). The third, a milk glass jar, was used by the Woodbury Soap Co., established in Albany, New York in 1870 (Wikipedia 2012).

Of the other six, one light green bottle has an Owens-Illinois date code for 1948 on a stippled base, a process usually used for beer bottles. One hobbleskirt Coca-Cola bottle body fragment was collected; it can be dated to post-1915 based on the bottle shape. The remaining five do not have features that enable identification.

**T-067**

Eleven glass bottles and fragments from eleven bottles were collected from T-067 (Table 17), nine from Stratum Ib (SIHP # -7506) and two from Stratum II (SIHP # -7426). The bottles/fragments from Stratum Ib consist of one amber bottle, probably a Clorox bottle, one clear Bireley's soda bottle, one clear bottle (possibly for ketchup), three clear medicine bottles (two marked Neutra Glas), one clear jar, and two milk glass jars. In Stratum II, there was a soda bottle for Mission Beverages, and a clear jar for “Seventeen,” probably a type cosmetic or skin care product. Neutra Glas was a special type of glass resistant to chemical attack, which was manufactured first in 1942 for medicine bottles (Myers 2000:23). Bireley's was an orange drink

introduced in 1930. In Hawai'i it was bottled by the Jardine Price Company (USASODA 2012). The embossed examples in Millar's (1988:Oahu 320) Hawaiian soda bottle book are dated to the 1940s. The bottle in T-067 had an Owens-Illinois Glass Co. date mark of 1936 or 1946. There was a second soda bottle in Stratum II, for Mission Beverages, bottled by the Hawaiian Soda Works; they began to use ACL labels in 1933 and continued marketing this brand in Hawai'i into the 1950s, as shown by photographs in Millar's (1988:Oahu 150–152) soda book.

### **T-082**

Fifteen fragments of six bottles were collected from T-082, Stratum Id (Table 18). The fragments of five bottles are all small without dating information. One fragment is a blob-top finish, used on mold blown bottles from the 1840s to the 1920s. The milk glass Pond's cold cream jar was made in an Automatic Bottle Machine (ABM) and has a continuous thread lip, and thus dates post-1920.

Table 12. East Kapālama, T-060, Glass Bottles

Acc. # 060-A-	Prov.	Type	Portion	No.	Lip Type	Lip Finish	Color	Ht. (cm)	Dia. (cm)	Base Shape	Mold	Age	Comments
1	T-060, St. IIb	Bottle, medicine	Complete	1	Patent	ABM	Clear	14.5	5.0 x 3.2	Rectan- gular	2 pc. cup	1930s ca.	Embossed on shoulder: "FINE-OXINA/ LABORATORIO SANTOS OCAMPO MANILA" in circle with hand and flame; Dr. Santos Ocampo had a drugstore in Manila in the 1930s (Galvez 2011:4)

Table 13. East Kapālama, T-061, Glass Bottles

Acc. # 061-A-	Prov.	Type	Portion	No.	Lip Type	Lip Finish	Color	Ht. (cm)	Dia. (cm)	Base Shape	Mold	Age	Comments
1	T-061, St. If	Bottle, milk	Complete	1	Capseat	--	Clear	17.0	7.0	Round	2 pc. cup	1940s and earlier	"1 pint, New Fair Dairy LTD. 467 Kapahulu Road, phone 7473" - embossed on body horizontally; "NFD" on base (Wilson 1921:158)
2	T-061, St. Ig	Bottle, milk	Complete	1	Capseat	--	Clear	24.0	9.0	Round	2 pc. cup	1936 or 1946	"PROPERTY OF/ HONOLULU/ Dairymen's/ ASSOCIATION" embossed horizontally on body; "ONE QUART" on heel; "HD/28 [I-O] 6" on base



Table 14. East Kapālama, T-064, Glass Bottles

Acc. # 064-A-	Prov.	Type	Portion	No.	Lip Type	Lip Finish	Color	Ht. (cm)	Dia. (cm)	Base Shape	Mold	Age	Comments
2	T-064, St. Ie, SIHP #-7506	Bottle, soda	Base-body	1	--	--	Green, Light	--	5.7	Round	2 pc. cup	1945	Seven-up bottle; "4285-C/ 23 I-O 45/1 /Duraglas (script) embossed on base. White ACL on body horizontally - "...NTS 7 FL. OZs ... ..ODA WATER WORKS CO/ .ONOLULU, T.H "
3	T-064, St. Ie, SIHP #-7506	Bottle, cosmetic	Body	1	--	--	White	5.5	--	Oval	--		Milk glass
4	T-064, St. Ie, SIHP #-7506	Bottle, beer	Complete	1	Crown	ABM	Amber	7.5	5.9	Round	2 pc. cup	1945	"NOT TO BE REFILLED - NO DEPOSIT NO RETURN - embossed on neck; "8565/S AH 45/10" - embossed on stippled base; Anchor Hocking
5	T-064, St. Ie, SIHP #-7506	Bottle, beer	Complete	1	Crown	ABM	Amber	7.5	5.9	Round	2 pc. cup	1946	"NOT TO BE REFILLED - NO DEPOSIT NO RETURN" - embossed on neck; "Duraglas (script)/4 I-O 6. /14" - embossed on stippled base
6	T-064, St. Ie, SIHP #-7506	Bottle, beer	Base	1	--	--	Amber	--	6.3	Round	2 pc. cup	1945	"4565-A/5 (H superimposed over an anchor)/45" - embossed on stippled base; Anchor- Hocking Glass Co. (Whitten 2013)

Acc. # 064-A-	Prov.	Type	Portion	No.	Lip Type	Lip Finish	Color	Ht. (cm)	Dia. (cm)	Base Shape	Mold	Age	Comments
7	T-064, St. Ie, SIHP #-7506	Bottle, beverage	Base	1	--	--	Clear	--	6.7	--	--	1944	"7429 AH/O 44" Hazel-Atlas; embossed on stippled base
8	T-064, St. Ie, SIHP #-7506	Bottle, medicine	Complete	1	Contin- uous thread	ABM	Brown	13.2	4.4 x 2.8	Rectan- gular	2 pc. cup	1945	"H. CLAY GLOVER CO. INC./NEW YORK, N.Y."; - Embossed vertically on both body sides; "4 I-O 5./4/" embossed on base
9	T-064, St. Ie, SIHP #-7506	Bottle, medicine	Complete	1	Contin- uous thread	ABM	Clear	11.5	3.5	Square	2 pc. cup	1941	"7205-E /20 I-O 1/1" - embossed on base
10	T-064, St. Ie, SIHP #-7506	Bottle, medicine	Complete	1	Contin- uous thread	ABM	Clear	9.0	0.6	Round	2 pc. cup	1920s -post	"2543" - embossed on base
11	T-064, St. Ie, SIHP #-7506	Bottle, condi- ment	Complete	1	Contin- uous thread	ABM	Clear	12.2	4.6 x 3.8	Oval	2 pc. cup	1920s -post	Ribbed on body-lower; embossed on base "3"
12	T-064, St. Ie, SIHP #-7506	Jar, cosmetic	Complete	1	Contin- uous thread	ABM	Clear	6.8	4.2 x 2.8	Oval	2 pc. cup	1920s -post	"Seventeen" (script) - embossed on base
13	T-064, St. Ie, SIHP #-7506	Bottle, beverage	Complete	1	Packer	ABM	Clear	25.7	8.0	Round	2 pc. cup	1945	"Federal Law Forbids Sale or Re-use of This Bottle" - embossed on shoulder horizontally; "4.5 Quart" (3 times) - on heel; "O-I icon/64/D270/45" - on stippled base

Table 15. East Kapālama, T-065, Glass Bottles

Acc. #	Prov.	Type	Portion	No.	Lip Type	Lip Finish	Color	Ht. (cm)	Dia. (cm)	Base Shape	Mold	Age	Comments
065-A-1	T-065 (spoil)	Bottle, beverage	Base-body	1	--	--	Aqua	4.8+	5.8	Round	2 pc. cup	Post 1915	Hobble skirt Coca Cola; dimple mark at base (Lockhart and Porter 2010:47)

Table 16. East Kapālama, T-066, Glass Bottles

Acc. #	Prov.	Type	Portion	No.	Lip Type	Lip Finish	Color	Ht. (cm)	Dia. (cm)	Base Shape	Mold	Age	Comments
066-A-10	T-066, St. Ic, SIHP #-7506	Bottle, medicine	Complete	1	Continuous thread	ABM	Blue, cobalt	6.0	4.0	Round	2 pc. cup	post 1920	"VICKS" (image of three Vs) "VAPORUB" - embossed on base; wide mouth jar (Vicks 2013)
11	T-066, St. Ic, SIHP #-7506	Bottle	Complete	1	Continuous thread	ABM	Green, light	6.5	3.0 x 2.5	Diamond	2 pc. cup	1920-post	"DES PAT" "9248"; small mouth; patent issued in 1852
12	T-066, St. Ic, SIHP #-7506	Bottle, cosmetic	Complete	1	Continuous thread	ABM	White	6.5	7.5 x 6.0	Oval	2 pc. cup	1920-1950s	Milk glass; elaborate design on two sides of bottle; "WOODBURY" embossed on base; wide mouth; milk glass (Wikipedia 2012)
13	T-066, St. Ic, SIHP #-7506	Bottle	Body	2	--	--	Amber	--	--	--	--		
14	T-066, St. Ic, SIHP #-7506	Bottle	Base	1	--	--	Aqua	--	--	--	--	1860s-post	Fragment embossed "6"

Acc. # 066-A-	Prov.	Type	Portion	No.	Lip Type	Lip Finish	Color	Ht. (cm)	Dia. (cm)	Base Shape	Mold	Age	Comments
15	T-066, St. Ic, SIHP #-7506	Bottle	Body	1	--	--	Blue, cobalt	--	--	--	--		
16	T-066, St. Ic, SIHP #-7506	Bottle, beverage	Base	1	--	--	Clear	--	8.0	Round	--	1932- post	"498/G [in square]/16" - embossed on base
17	T-066, St. Ic, SIHP #-7506	Bottle, beverage	Body	1	--	--	Clear	--	--	--	--	1933- 1955	"Delic...", "DELAWARE," "...PUNCH" - white ACL lettering on body (Lockhart 2011:88)
18	T-066, St. Ic, SIHP #-7506	Bottle	Body	2	--	--	Clear	--	--	--	--	1870s -post	Fused (heat-altered) fragments
19	T-066, St. Ic, SIHP #-7506	Bottle	Body	1	--	--	Clear	--	--	--	--	1870s -post	
20	T-066, St. Ic, SIHP #-7506	Vial, medicine	Body	1	--	--	Clear	--	--	--	--	1870s -post	
21	T-066, St. Ic, SIHP #-7506	Bottle, beverage	Lip	1	Crown	ABM	Clear	--	--	--	2 pc.	1907- post	
22	T-066, St. Ic, SIHP #-7506	Bottle, beverage	Neck-lip	1	Crown	ABM	Clear	--	--	--	2 pc.	1907- post	Letters on fragment "NOT"

Acc. # 066-A-	Prov.	Type	Portion	No.	Lip Type	Lip Finish	Color	Ht. (cm)	Dia. (cm)	Base Shape	Mold	Age	Comments
23	T-066, St. Ic, SIHP #-7506	Bottle	Neck-lip	1	Contin- uous thread	ABM	Clear	--	--	--	2 pc.	1920- post	Narrow-mouth
24	T-066, St. Ic, SIHP #-7506	Bottle	Neck-lip	1	Contin- uous thread	ABM	Clear	--	--	--	2 pc.	1920- post	Narrow-mouth
25	T-066, St. Ic, SIHP #-7506	Bottle, beverage	Neck-lip	1	Crown	ABM	Clear	--	--	--	2 pc.	1907- post	
26	T-066, St. Ic, SIHP #-7506	Bottle	Complete	1	Contin- uous thread	ABM	Clear	14.5	6.0 x 4.0	Diamond	2 pc. cup	1920- post	Bottle has round diamond shape, simple designs on both sides of bottle; wide mouth; embossed on base "28 1405"
27	T-066, St. Ic, SIHP #-7506	Bottle, beverage	Complete	1	Brandy	ABM	Clear	26.0	8.0	Round	2 pc. cup	1930s 1940s	"FEDERAL LAW FORBIDS SALE" - "OR REUSE OF THIS BOTTLE" embossed vertically on body; "45 QUART 26 4/5 QUART" embossed on heel; "18/45/0/?" (maybe 0-8) embossed on base (BLM/SHA 2013)
28	T-066, St. Ic, SIHP #-7506	Bottle	Base-body	1	--	--	Green, light	--	4.5 x 2.5	Oval	--	1948	Embossed on stippled base "4 O-I 8."
29	T-066, St. Ic, SIHP #-7506	Bottle, Coke	Body	1	--	--	Green, light	--	--	--	--	1917- post	Hobble skirt Coca Cola; dimple mark on base (Lockhart and Porter 2010:47)

Acc. #	Prov.	Type	Portion	No.	Lip Type	Lip Finish	Color	Ht. (cm)	Dia. (cm)	Base Shape	Mold	Age	Comments
066-A-30	T-066, St. Ic, SIHP #7506	Bottle, beverage	Neck-lip	1	Crown	ABM	Green, light	--	--	--	2 pc.	1907-post	

Table 17. East Kapālama, T-067, Glass Bottles

Acc. #	Prov.	Type	Portion	No.	Lip Type	Lip Finish	Color	Ht. (cm)	Dia. (cm)	Base Shape	Mold	Age	Comments
067-A-4	T-067, St. Ib, SIHP #7506	Bottle, soda	Complete	1	Crown	ABM	Clear	17.5	5.3	Round	2 pc. cup	1934/1944	"Bireley's" embossed horizontally on body; "CONTENTS 6 ¾" "TRADE MARK REC" on shoulder; "23 O-I 4" on base; Owens-Ill Glass Co. mfg. mark
5	T-067, St. Ib, SIHP #7506	Bottle, medicine	Complete	1	Continuous thread	ABM	Clear	7.3	2.9 x 1.7	Rectangular	2 pc. cup	1938-1969	Graduated bottle; embossed on base: "2 A" (in circle) "44. USA"; mark used by Armstrong Cork Co.
6	T-067, St. Ib, SIHP #7506	Bottle, medicine	Complete	1	Patent	ABM	Clear	5.5	3.0	Round	2 pc. cup	1942-post	"NEUTRA GLAS" "N - 51A" "U.S.A." "4"; melted neck (Myers 2000)
7	T-067, St. Ib, SIHP #7506	Bottle, medicine	Complete	1	Patent	ABM	Clear	5.5	3.0	Round	2 pc. cup	1942-post	embossed on base: "NEUTRA GLAS" "N - 51A" "U.S.A." "21" (Myers 2000)
8	T-067, St. Ib, SIHP #7506	Bottle, cleaner	Neck-lip	1	Continuous thread	ABM	Amber	--	--	--	2 pc.	1940-1962	Half gallon neck and handle; possibly Clorox bottle (Clorox 2013)

Acc. # 067-A-	Prov.	Type	Portion	No.	Lip Type	Lip Finish	Color	Ht. (cm)	Dia. (cm)	Base Shape	Mold	Age	Comments
9	T-067, St. Ib, SIHP #-7506	Jar, food/ cosmetic	Complete	1	Contin- uous thread	ABM	Clear	9.0	6.5	Round	2 pc. cup	1943	Embossed on stippled base "25 O-I 3"; on Owens - Illinois Glass Co. mfg.
10	T-067, St. Ib, SIHP #-7506	Bottle, cosmetic	Complete	1	Contin- uous thread	ABM	White	3.0	4.2	Round	2 pc. cup	1920- post	Wide mouth cosmetic jar; milk glass
11	T-067, St. Ib, SIHP #-7506	Bottle, cosmetic	Complete	1	Contin- uous thread	ABM	White	4.0	5.0	Round	2 pc. cup	1920- post	Wide mouth cosmetic jar; milk glass
12	T-067, St. Ib, SIHP #-7506	Bottle, food	Base	1	--	--	Clear	--	6.0	Round	--	1936/ 1946	Owens - Illinois Glass Co fluted glass jar, "4067 - EP" embossed on body; "20 I-O 6" embossed on base
13	T-067, St. II, SIHP #-7426	Bottle, soda	Body	1	--	--	Clear	--	--	--	--	1933- 1950s	"GE...urally Good....sion....." - White ACL on body; for Mission Beverages - Hawaiian Soda Works (Millar 1988: Oahu 150-152)
14	T-067, St. II, SIHP #-7426	Jar, cosmetic	Complete	1	Contin- uous thread	ABM	Clear	6.8	4.3	Round	2 pc. cup	1920- post	Wide mouth jar; "Seventeen" - embossed on base; fluted designs around bottle



Table 18. East Kapālama, T-082, Glass Bottles

Acc. # 082-A-	Prov.	Type	Portion	No.	Lip Type	Lip Finish	Color	Ht. (cm)	Dia. (cm)	Base Shape	Mold	Age	Comments
7	T-082, St. Id	Bottle, beverage	Lip	1	Blob	--	Aqua	--	--	--	--	1840s- 1920s	
8	T-082, St. Id	Bottle	Body	3	--	--	Aqua	--	--	--	--		
9	T-082, St. Id	Bottle	Body/neck	2	--	--	Clear	--	--	--	2 pc.	1870s- post	
10	T-082, St. Id	Bottle	Body	2	--	--	Green	--	--	--	--		
11	T-082, St. Id	Bottle	Body	1	--	--	Olive	--	--	--	--		
12	T-082, St. Id	Jar, cosmetic	Body	6	Contin- uous thread	ABM	White	--	--	Square	--	1920- post	Milk glass; "PONDS" in circle embossed vertically on body; Pond's cold creams invented in 1846 (Fike 1987:120)

### 4.8.3 Miscellaneous Historic Artifacts

Miscellaneous artifacts were collected from four of the 31 East Kapālama test excavations. Four metal, four ceramic, and one composite fragments/artifacts were collected from T-064 (Table 19), including a metal rouge compact made for the Helena Rubenstein cosmetic company that is similar to another one collected in T-031, dating from the 1920s to 1940s. Two ceramic electrical insulators also were collected from T-064. One is impressed "PYREX G. E. CO. U.S.A." that dates from 1915 to the present; and a cleat marked "UNIVERSAL" that dates from 1919 to the present (R=Infinity 2013). One of the ceramic items was a reddish-brown teardrop-shaped hollow earthenware item with a hole in one side. The function of this ceramic item is unknown, although it is similar in shape to items called broken "decorations" found in the Chinese neighborhood artifact collection from Walnut Grove, California (Costello and Maniery 1988:49).

Six metal, two ceramic, one glass, and one unknown material artifacts or fragments were collected from T-067 (Table 20). These consist of a bullet cartridge, and household items consisting of an animal statuette leg, a metal cup, fork, spoon, and a metal screw.

One milled wood plank fragment was the only miscellaneous artifact collected from T-073 (Table 21).

Ten fragments and one complete artifact were collected from T-082 (Table 22), consisting of five metal fragments (a pipe fitting, a rail spike, a wire, and two fragments of barbed wire), four fragments of three bricks, one ceramic insulator, and a block of coal-like material. The widths and thickness of two of the machine-made bricks are NBMA (National Brick Manufacturers Association of the United States) standard sizes manufactured from 1918 to 1978; the sizing changed in 1978 (Meide 1994:25). A rail spike was also collected. Tracks for the OR&L Co. were constructed in 1889 and abandoned for the most part by 1947 (Chiddix and Simpson 2004).

Table 19. East Kapālama, T-064, Miscellaneous Historic Artifacts

Acc. # 064-A-	Prov.	Type	Material	Portion	No.	Measurements	Description
14	T-064, St. Ic	Ammunition - cartridge	Metal	Complete	1	0.4 (D) cm.	Rim fire?; very corroded
15	T-064, St. Ic	Cosmetic compact	Metal	Complete	1	8.0 (L) x 7.5 (W) x 1.0 (T) cm.	Cosmetic compact case; similar to Helena Rubenstein compact in T-031
16	T-064, St. Ic	Insulator, electrical	Ceramic (porcelain)	Fragment	1	2.5 (D) cm.	Impressed on top in recessed panel "COPY"
17	T-064, St. Ic	Machine part - rod	Metal	Fragment	1	10.35 (L) cm.	Machine part; glass fused onto rod
18	T-064, St. Ic	Spoon, serving	Metal	Complete	1	9.0 (L) x 2.0 (W) cm.	Simple - no decoration
19	T-064, St. Ic, SIHP #-7506	Ceramic item	Ceramic (earthenware)	Complete	1		Shaped like a horn with a hole; unknown function; reddish brown slip glaze; molded
20	T-064, St. Ic, SIHP #-7506	Insulator	Ceramic (porcelain)	Fragment	1	2.5+ (L) cm.	Round; fused glass and metal mass; part of porcelain impressed "PYREX G. E. CO. U.S.A." (Pyrex patented in 1915)
21	T-064, St. Ic, SIHP #-7506	Insulator	Composite	Fragment	1	3.3 (H) x 2.8 (D) cm.	Porcelain and metal
22	T-064, St. Ic, SIHP #-7506	Insulator cleat	Ceramic (porcelain)	Fragment	1	5.8 (H) x 2.0 (W) x 1.7 (T) cm.	Impressed writing "UNIVERSAL" (mark used by Universal Clay Products Co., Sandusky, OH, from 1919 to the present (R-Infinity 2013))

Table 20. East Kapālama, T-067, Miscellaneous Historic Artifacts

Acc. # 067-A-	Prov.	Type	Material	Portion	No.	Measurements	Description
15	T-067, St. Ib, SIHP #-7506	Cup	Metal	Complete	1	10.0 (L) x 6.0 (W) cm.	Plain metal cup, rusted and very bent
16	T-067, St. Ib, SIHP #-7506	Unknown	Metal	Fragment	1	--	
17	T-067, St. Ib, SIHP #-7506	Ceramic item	Ceramic	Fragment	1	--	Possible architectural or electrical ceramic stoneware fragment; not a vessel
18	T-067, St. Ib, SIHP #-7506	Animal statuette	Ceramic	Fragment	1	--	Leg of small animal statuette, possibly cat, dog, or elephant statuette; earthenware
19	T-067, St. Ib, SIHP #-7506	Statue?	Glass	Fragment	1	Fragment	Looks like a hand
20	T-067, St. Ib, SIHP #-7506	Fork	Metal	Complete	1	20.0 (L) x 2.0 (W) cm.	Plain dinner fork with four tines; metal extremely rusted and warped
21	T-067, St. Ib, SIHP #-7506	Spoon	Metal	Complete	1	11.0 (L) x 2.3 (W) cm.	Small, plain baby spoon; metal rusted and warped
22	T-067, St. Ib, SIHP #-7506	Cylindrical object	Unknown	Fragment	1	6.0 (L) x 1.0 (W) cm.	Solid cylindrical object; black, light-weight material; clean edges
23	T-067, St. Ib, SIHP #-7506	Screw	Metal	Complete	1	5.0 (L) x 1.0 (W) cm.	Hollow metal screw
24	T-067, St. Ib, SIHP #-7506	Bullet cartridge	Metal	Complete	1	6.0 (L) x 1.0 (W) cm.	Bullet cartridge; rusted; hollow opening at bottom that's bent in

Table 21. East Kapālama, T-073, Miscellaneous Historic Artifacts

Acc. # 073-A-	Prov.	Type	Material	Portion	No.	Measurements	Description
1	T-073, backhoe	Milled plank	Wood	Fragment	1	50.0+ (L) x 5.0 (W) x 3.0 (T) cm.	Milled plank

Table 22. East Kapālama, T-082, Miscellaneous Historic Artifacts

Acc. # 082-A-	Prov.	Type	Material	Portion	No.	Measurements	Description
13	T-082, St. Id	Brick	Fired clay	Fragment	2	--	Red color; too small to identify
14	T-082, St. Id	Brick	Fired clay	Fragment	1	3 1/2+ x 3 3/4 x 2 1/2 in.	Red color; machine-made; age: 1918 to 1978 (Meide 1994:25)
15	T-082, St. Id	Brick	Fired clay	Fragment	1	3+ x 3 3/4 x 2 1/2 in.	Red color, machine-made; age: 1918 to 1978 (Meide 1994:25)
16	T-082, St. Id	Insulator	Ceramic	Half	1	4.6 (D) cm.	White glaze porcelain
17	T-082, St. Id	Possible pipe fitting	Metal	Fragment	1	10.0 (L) x 1.5 (W) x 0.7 (T) cm.	Metal semi circle piece; possible pipe fitting
18	T-082, St. Id	Rail spike	Metal	Complete	1	18.0 (L) x 1.2 (W) cm.	Rail spike, bent into serpentine shape; age: 1889-1947 (Chiddix and Simpson 2004)
19	T-082, St. Id	Unknown	Composite	Fragment	1	9.0 (L) x 5.5 (W) x 5.5 (T) cm.	Block of coal-like material
20	T-082, St. Id	Wire	Metal	Fragment	1	21.5 (L) cm.	Rusty metal wire
21	T-082, St. Ig	Barbed wire	Metal	Fragment	2	20.0 (L) cm.	Two twisted wires; too corroded to see ties

#### 4.8.4 Summary of Artifact Assemblage from East Kapālama

The ceramic vessels from East Kapālama are a mixture of Euro-American and Asian hollowwares and flatwares. There are two vessels with a narrow date range, an Asian bowl stamped “Made in Japan” on the base, dating the vessel to post-1921, and a mark for an American china company on a bowl, dated to 1909-1914. The remainder reflect vessel forms and decorative styles widely available during the late nineteenth to early twentieth century. Only one fragment from a Fiestaware vessel clearly dates after the 1920s.

The glass bottles with a narrow date range from East Kapālama are from the post 1930s-era; one bottle is dated to 1948. There are no early bottles; the ones with some evidence for manufacture have the characteristics of machine-made bottles (post-1903), and all of the bottles may date from the early to mid-twentieth century. Two of the bottles were distributed from Honolulu District bottling plants near the East Kapālama area.

The miscellaneous items are also generally twentieth century artifacts, with insulator items post-dating 1915/1919, and a brick dating from 1918 to 1978. A railroad spike, likely from the OR&L Co. train tracks, may date to the use of the tracks (1889-1947) or post date 1947, when many tracks were torn up and removed.

In summary, the historic artifacts from East Kapālama with datable attributes primarily were made in the twentieth century, probably from 1907 to the 1940s. The exceptions are a small number of late nineteenth century ceramic vessels. The material is varied and likely represents domestic refuse, although items like the rail spike may be related to transportation systems, such as the OR&L Co. railroad.

## 4.9 Artifact Analysis for Iwilei (Test Excavations 085 through 095)

Historic artifacts were collected from five of the 11 test excavations within Iwilei (T-086, T-087, T-089, T-090, and T-094). A total of 41 historic artifact fragments were collected, consisting of 5 ceramic vessel fragments, 20 glass bottle/bottle fragments, and 16 miscellaneous items.

### 4.9.1 Ceramic Vessels

#### T-086

Two ceramic fragments of two vessels were collected from T-086, Stratum Ih (Table 23). The porcelain fragment is an Asian rice bowl, with a large flower design in pink and blue. The Euro-American earthenware item is a rim fragment of a plate, with a decal (post-1880) of polychrome flower design.

#### T-087

Three ceramic fragments of three vessels, two earthenware and one porcelain, were collected from T-087, Strata Id and Ie (Table 24). One has an appliqué design of dots and white fleur-de-lis, suggesting a European origin. Another is a typical Asian shape/decorated shallow bowl with a Made in Japan stamp on the base, which post-dates the vessel to 1921 or later, when the country of origin had to be placed on all ceramics exported to America. The third fragment is a spout to a Euro-American earthenware teapot.

Table 23. Iwilei, T-086, Ceramic Vessels

Acc. # 086-A-	Prov.	Type	Portion	No.	Paste	Ware	Decoration	Rim Motif	Origin; Age	Comments
1	T-086, St. Ih	Hollowware - rice bowl	Base to rim	1	Porcelain	--	Incised, floral painted underglaze	None	Asian, probably Japanese	Red flowers with blue leaves; diamond stamped on base; high foot
2	T-086, St. Ih	Flatware - plate	Body to rim	1	Refined earthenware	Whiteware	Decal polychrome floral with hand painted overglaze	None	Euro- American; post-1880	Red and blue flowers, green leaves

Table 24. Iwilei, T-087, Ceramic Vessels

Acc. # 087-A-	Prov.	Type	Portion	No.	Paste	Ware	Decoration	Rim Motif		Comments
1	T-087, St. Id	Hollowware - teapot spout	Body	1	Refined earthenware	Whiteware	None	--	Euro- American	
2	T-087, St. Ie	Unknown	Body	1	Coarse earthenware	Unknown	Appliquéd geometric pattern; white painted overglaze fleur- de-lis	--	Euro- American	Brown opaque glaze
3	T-087, St. Ie	Hollowware - shallow bowl	Base to body	1	Porcelain	--	Floral painted underglaze	--	Japanese, post-1921	On base: "...pan / ...Minida" [drawing] "Japan"



## 4.9.2 Glass Bottles

### T-086

Nine complete bottles were collected from Strata Ie and Ih of T-086 (Table 25). These consist of two food jars (one for “Best Foods”), two cosmetic milk glass Ponds Cream jars, one medicine bottle, one spirits bottle, and three bottles of unknown function. All bottles were made in an Automatic Bottle Machine (ABM) and post-date 1903 for jars and 1907 for narrow-neck bottles. Four bottles have a narrow date range based on glass manufacturer’s marks and date codes. The liquor bottle (spirits) has a code for Thatcher’s Mfg. Co. for 1940. A small bottle, possibly a tablet/pill bottle, has an Owens Glass Co. mark used from 1911 to 1929. The Best Foods jar has a mark used by the Pacific Coast Glass Co. from 1925 to 1930. One amber bottle, probably a beer, has an Owens-Illinois Glass Co. date code for 1935 or 1945. There are no differences in the type or date ranges between the two fill layers (Strata Ie and Ih). Stratum Ie has a bottle dated to 1940 and Stratum Ih has a bottle dated to 1935/1945. The bottles likely result from domestic use and may all date to the 1930s to 1940s.

### T-087

Seven bottle/bottle fragments representing seven bottles were collected from Strata Id and Ie of T-087 (Table 26). These consist of a cosmetic jar, five medicine bottles, and one soda bottle. The medicine bottles were manufactured for “Sloan’s Liniment,” for the drug company of “Wyeth & Brother, Philadelphia” and for “Colgate and Co.” These embossed medicine bottles date from the mid-nineteenth century into the twentieth century; however, one must pre-date the 1890s as it has an applied lip finish, and one must post-date 1907 as it has an ABM lip finish. Elliot and Gould (1988:120-121) date the “Sunrise Soda Works, Honolulu” soda bottle to 1910–1913. The soda works was located on North King Street in Kapālama. The heel of this bottle is also marked with letters of the Illinois Pacific Glass Co., who used the mark from 1902 to ca. 1925. The bottles in this test excavation seem to date to an earlier time period to those in T-086, as several bottles in this test excavation cluster around the turn-of-the-century.

### T-089

One beer (two fragments) and two soda bottles were collected from Stratum Ij of T-089 (Table 27). The beer bottle can be dated by the glass manufacturing mark for the American Bottle Co., used from 1905–1917. Two bottles are similar to illustrations in Elliott and Gould’s (1988) book on early Hawaiian soda bottles. They date the “Arctic Soda Works, Honolulu” bottle to 1910–1913 and the “Hawaiian Soda Works, Honolulu” bottle to 1900–1905. Both of these companies had bottling plants in downtown Honolulu (Elliott 1971:24, 28). The bottles from T-089 are similar in age to those in T-087, but much earlier than the dated bottles in T-086.

Table 25. Iwilei, T-086, Glass Bottles

Acc. # 086-A-	Prov.	Type	Portion	No.	Lip Type	Lip Finish	Color	Ht. (cm)	Dia. (cm)	Base Shape	Mold	Age	Comments
3	T-086, St. Ie	Bottle, spirits	Complete	1	Contin- uous thread	ABM	Clear	25.0	8.0	Round	2 pc. cup	1940	"Federal Law Forbids sale or Re-use of this Bottle" - embossed on body; "4/5 Quart" - on heel; "D2/ 40 46" - on base (BLM/SHA 2013); date code of Thatcher Glass Mfg. Co. for liquor bottles
4	T-086, St. Ie	Jar, food	Complete	1	Contin- uous thread	ABM	Clear	14.0	8.0	Oval	2 pc. cup	1920- post	"3" - embossed on base
5	T-086, St. Ie	Jar, cosmetic	Complete	1	Contin- uous thread	ABM	White	6.5	6.0	Oval	2 pc. cup	1920- post	"Pond's/10-3" embossed on base (Fike 1987:120, Munsey 2010b:15a); milk glass
6	T-086, St. Ie	Jar, cosmetic	Complete	1	Contin- uous thread	ABM	White	5.5	5.5	Oval	2 pc. cup	1920- post	"Pond's/7" - embossed on base (Fike 1987:120, Munsey 2010b:15a); milk glass
7	T-086, St. Ih	Bottle, medicine	Complete	1	Patent	ABM	Clear	6.8	2.5 x 2.5	Rect- angular	2 pc. key	1920- post	"1 - B" - embossed on base
8	T-086, St. Ih	Bottle	Complete	1	Contin- uous thread	ABM	Clear	9.0	3.0	Round	2 pc. cup	1911- 1929	"6 O [in square] 8 109" - embossed on base; mfg. mark for Owens Glass Co.
9	T-086, St. Ih	Jar, food	Complete	1	Contin- uous thread	ABM	Clear	20.5	6.5	Round	2 pc. cup	1925- 1930	"BEST/FOODS/ REGISTERED" - embossed on base; bottom: (image) "21"; "P/C" in square on heel; twist top (Whitten 2013); Pacific Coast Glass Works

Acc. #	Prov.	Type	Portion	No.	Lip Type	Lip Finish	Color	Ht. (cm)	Dia. (cm)	Base Shape	Mold	Age	Comments
086-A-10	T-086, St. Ih	Bottle	Complete	1	Continuous thread	ABM	Amber	13.0	5.0	Round	2 pc. cup	1935/1945	Embossed on base: "O-I. 7 2/5" (image)/"2/5" - embossed on base
11	T-086, St. Ih	Bottle	Complete	1	Continuous thread	ABM	Amber	13.0	5.0	Round	2 pc. key	1920-post	Metal top

Table 26. Iwilei, T-087, Glass Bottles

Acc. #	Prov.	Type	Portion	No.	Lip Type	Lip Finish	Color	Ht. (cm)	Dia. (cm)	Base Shape	Mold	Age	Comments
087-A-4	T-087, St. Id	Bottle, medicine	Complete	1	English ring	Tooled	Clear	12.0	4.5	Rectangular	2 pc. cup	1870s-1920s	"SLOAN'S/Liniment" – embossed vertically on body side; "Made in U.S.A./Illinois" – embossed horizontally on heel (BLM/SHA 2013; Wikipedia 2013b)
5	T-087, St. Ie	Bottle, medicine	Complete (almost)	1	Patent	Tooled	Clear	10.0	3.5	Round	2 pc. cup	1870s-post	
6	T-087, St. Ie	Jar, cosmetic	Body	1	Continuous thread	--	White	2.5	6.0	Round	--	1920-post	Milk glass jar
7	T-087, St. Ie	Bottle, soda	Complete (almost)	1	Crown	Tooled	Green, light	22.0	5.3	Round	2 pc. cup	1910-1913	"SUNRISE SODA WATER WORKS/HONOLULU" - embossed on body; "S" on base; "I P G Co 13" embossed on heel (Elliot and Gould 1988:120-121)

Acc. # 087-A-	Prov.	Type	Portion	No.	Lip Type	Lip Finish	Color	Ht. (cm)	Dia. (cm)	Base Shape	Mold	Age	Comments
8	T-087, St. Ie	Bottle, medicine	Base- shoulder	1	--	--	Clear	17.25+	8.3	Oval	2 pc. cup	1860- post	"WYETH & BRO PHILADA" - embossed on body; "2262" - on base (Griffenhagen and Bogard 1999:85)
9	T-087, St. Ie	Bottle, medicine	Complete	1	Patent	Tooled	Clear	12.3	4.8	Rect- angular	2 pc. cup	1870s -post	"A-96 H.M.M. Co"- embossed on base
10	T-087, St. Ie	Bottle, medicine	Complete (almost)	1	Patent	Tooled	Clear	11.0	4.8	Rect- angular	2 pc. cup	1870s -1928	"Colgate & Co. New York" - embossed on base; logo on body "C C Co" in a circle (Colgate 2013)

Table 27. Iwilei, T-089, Glass Bottles

Acc. # 089-A-	Prov.	Type	Portion	No.	Lip Type	Lip Finish	Color	Ht. (cm)	Dia. (cm)	Base Shape	Mold	Age	Comments
1	T-089, St. Ij	Bottle, soda	Base- body	1	--	--	Aqua	13.0+	6.0	Round	2 pc. cup	1910- 1913	"ARCTIC (in arch)/SODA/ WORKS/HONOLULU/ T.H." - embossed horizontally on body; "Bottle is not sold" - on heel; "A.S.W." - on base (Elliot and Gould 1988:78)
2	T-089, St. Ij	Bottle, soda	Complete	1	Blob	Applied	Aqua	19.5	5.0	Round	2 pc. cup	1900- 1905	"HAWAIIAN/SODA/ WORKS/HONOLULU /H.I." - embossed horizontally on body; "H" on base; Hutchinson closure (Elliot and Gould 1988:98)
3	T-089, St. Ij	Bottle, beer	Base/neck	2	Crown	ABM	Aqua	9.0+	8.0	Round	2 pc. cup	1905- 1917	"A. B./Co./E 3" - embossed on base, for American Bottle Co.

### 4.9.3 Miscellaneous Historic Artifacts

Miscellaneous artifacts were collected from five of the Iwilei test excavations.

One composite and one metal fragment/artifact was collected from T-086 (Table 28), including a light bulb and a rail spike similar to the one collected from T-082, dating from 1889 to 1947.

Two bricks, one metal, and one rubber fragments/artifacts were collected from T-087 (Table 29). One of the brick fragments is yellow with coral inclusions; it is not possible to determine whether this brick fragment was hand- or machine-made. The second brick fragment is fired clay with a flat side and a convex side. A corroded wire nail fragment and a complete rubber tubular item also were collected from T-087. Wire nails date ca. 1850 (IMACS 1992). They were first imported to Hawai'i in 1894 (Hurst and Allen 1992:59) and continue to be used in Hawai'i today.

A rail spike similar to the ones collected from T-086 and T-090, dating from 1889 to 1947, was collected from T-089 (Table 30). Two rail spikes were collected from T-090 (Table 31).

Seven machine-made red brick fragments were collected from T-094 (Table 32).

Table 28. Iwilei, T-086, Miscellaneous Historic Artifacts

Acc. # 086-A-	Prov.	Type	Material	Portion	No.	Measurements	Description
12	T-086, St. Ie	Light bulb	Composite	Fragment	1	6.5 (H) x 2.0 (W) cm.	Yellow oval glass with wires attached
13	T-086, St. Ib	Spike, rail	Metal	Complete	1	15.0 (L) x 2.0 (D) cm.	P-shaped head; square cross-section; end bi-tapered; age: 1889 to 1947 (Chiddix and Simpson 2004)

Table 29. Iwilei, T-087, Miscellaneous Historic Artifacts

Acc. # 087-A-	Prov.	Type	Material	Portion	No.	Measurements	Description
11	T-087, St. Id	Brick	Fired clay	Fragment	1	--	Yellow color; coral inclusions
12	T-087, St. Ie	Brick	Fired clay	Fragment	1	--	One-side flat, one-side convex
13	T-087, St. Ie	Nail, wire	Metal	Fragment	1	4.1 (L) cm.	Head missing; corroded; age: ca. 1850 to the present (IMACS 1992)
14	T-087, St. Ie	Tubular item	Rubber	Complete	1	5.5 (L) x 0.3 (D) cm.	Solid tubular, flat ends

Table 30. Iwilei, T-089, Miscellaneous Historic Artifacts

Acc. # 089-A-	Prov.	Type	Material	Portion	No.	Measurements	Description
4	T-089, St. Ij	Spike, rail	Metal	Complete	1	14.5 (L) x 1.7 (D) cm.	P-shaped head; square cross-section; end bi-tapered; age: 1889 to 1947 (Chiddix and Simpson 2004)

Table 31. Iwilei, T-090, Miscellaneous Historic Artifacts

Acc. # 090-A-	Prov.	Type	Material	Portion	No.	Measurements	Description
1	T-090, St. If	Spike, rail	Metal	Complete	1	15.0 (L) x 2.0 (D) cm.	P-shaped head; square cross-section; end bi-tapered; age: 1889 to 1947 (Chiddix and Simpson 2004)
2	T-090, St. If	Spike, rail	Metal	Complete	1	15.0 (L) x 2.0 (D) cm.	P-shaped head; square cross-section; end bi-tapered; age: 1889 to 1947 (Chiddix and Simpson 2004)

Table 32. Iwilei, T-094, Miscellaneous Historic Artifacts

Acc. # 094-A-	Prov.	Type	Material	Portion	No.	Measurements	Description
1	T-094, St. Id	Bricks	Fired clay	Fragment	7	--	Red color; machine-made

#### 4.9.1 Summary of Artifact Assemblage from Iwilei

Historic artifacts were collected from five test excavations in Iwilei. Four metal rail spikes were collected from four of the five test excavations. These may be associated with the Honolulu streetcar tracks built in the 1890s and torn up in 1933 or, more likely, with the OR&L railroad, which terminated in the Iwilei area. The bottles in T-086 seem to be different from the bottles collected from T-087 and T-089. In T-086, the bottles are all made in an Automatic Bottle Machine, post-1903, and many of them can be dated to the 1920s–1940s. One ceramic fragment can also be dated to post-1921. In T-087 and T-089, the majority of the bottles are not machine blown; they were mouth blown in molds and date to the 1890s–1920s. The two machine-made bottles also probably date to the first two decades of the twentieth century. The bottles (with known origin) were all made in the United States; some of the bottles were filled with soda at several Honolulu District soda works. The ceramics collected from these test excavations are a mixture of Euro-American earthenwares and Asian (probably Japanese) porcelains. All likely date to the early twentieth century. With the exception of the railroad spikes, the historic artifacts likely represent domestic refuse.



## **4.10 Artifact Analysis for Downtown Waterfront (Test Excavations 096 through 115)**

Historic artifacts were collected from 12 of the 22 test excavations within Downtown Waterfront (T-096 through T-101, T-104, T-104A, T-108, T-112, T-114, and T-115). A total of 237 historic artifacts were collected, including 58 ceramic vessel fragments, 95 glass bottle/bottle fragments, and 84 miscellaneous items. Portions of six trenches are part of a cultural resource, SIHP #50-80-14-7427 (T-096 Stratum II; T-097 Feature 6; T-097 Feature 7; T-099 Feature 9; T-100 Feature 11 and Stratum II; and T-101 Feature 14). Historic artifacts from these strata generally date from the late nineteenth- to early twentieth-century.

### **4.10.1 Ceramics**

#### **T-096**

Six ceramic fragments from five vessels were collected from T-096, Stratum II, SIHP #50-80-14-7427 (Table 33). They consist of two Asian porcelain vessels, and three Euro-American vessels consisting of one whiteware and two yellowwares.

#### **T-097**

Three ceramic fragments from three vessels were collected from T-097, Stratum Id (Table 34). They consist of a Euro-American earthenware whiteware rim, an Asian Celadon glaze rice bowl, and an Asian, probably Japanese, rice bowl with a painted blue swirl design.

#### **T-100**

One ceramic fragment of a Euro-American earthenware plate with an Asian-inspired Transfer print scenic decoration was collected from T-100, Stratum II (Table 35). Although the fragment has an Asian design, it is not Asian in origin, as Asian scenes also were used on European whitewares.

#### **T-101**

Three ceramic fragments of three vessels were collected from T-101, SIHP #-7427 Feature 14 (Table 36). They consist of a Japanese cup with a “Dashed Line” transfer print design and an Asian character on the base, a Euro-American whiteware rim fragment of a plate/platter with a geometric transfer print design, and a Euro-American whiteware chamber pot rim fragment with a thick-lined Lokelani-style painted floral design.

#### **T-104**

Thirty-five ceramic fragments of a minimum of ten vessels were collected from T-104, Strata If, Ig, Ih, and Ij (Table 37). From Stratum If, twenty fragments were part of one Chinese “Four Flowers” Asian bowl, and seven fragments were from an Asian celadon/wintergreen rice bowl with an Asian character on the base. The remaining fragments may be part of six vessels, including a possible pitcher with a pale blue transfer print. Others include several Euro-American vessels with painted motifs, one with a transfer print, and two painted porcelains, both Asian. Also collected were a Chinese stoneware jar fragment from Stratum Ig and a Euro-American yellowware mug fragment from Stratum Ih.

**T-108**

Five ceramic fragments from a minimum of five Euro-American vessels were collected from T-108, Stratum Id (Table 38). They consist of one porcelain and one yellowware flared bowls, and three whiteware vessels. The yellowware bowl has an annular banded decoration, including engine-turned lines and hand-painted applied slip lines. One of the whiteware vessels is a plate with an edged motif consisting of both relief molding and blue hand painting.

**T-112**

Four fragments of a minimum of two vessels were collected T-112, Stratum Ib (Table 39). All four are Euro-American earthenware whitewares. Two have a floral transfer print and one has a blue floral painted underglaze design. The fourth has an edge-decorated rim consisting of both relief molding and blue hand painting.

**T-115**

One complete British stoneware bottle with a two tone tan/cream (ferrigenous/Bristol) exterior was collected from T-115, Stratum Id (Table 40). The bottle dates from the latter part of the nineteenth century.

Table 33. Downtown Waterfront, T-096, Ceramic Vessels

Acc. # 096-A-	Prov.	Type	Portion	No.	Paste	Ware	Decoration	Rim Motif	Origin; Age	Comments
1	T-096, St. Ii, SIHP #-7427	Hollowware - unidentified	Base to body	1	Yellowware	Yellowware	--	--	Euro- American	
2	T-096, St. Ii, SIHP #-7427	Hollowware - unidentified	Body	1	Yellowware	Yellowware	--	--	Euro- American	
3	T-096, St. Ii, SIHP #-7427	Tableware - unidentified	Base	2	Refined earthenware	Whiteware	--	--	Euro- American	
4	T-096, St. Ii, SIHP #-7427	Tableware - unidentified	Body to rim	1	Porcelain		Blue painted underglaze	--	Chinese	Asian design
5	T-096, St. Ii, SIHP #-7427	Tableware - unidentified	Body	1	Porcelain		Blue painted underglaze		Chinese	Asian design

Table 34. Downtown Waterfront, T-097, Ceramic Vessels

Acc. # 097-A-	Prov.	Type	Portion	No.	Paste	Ware	Decoration	Rim Motif	Origin; Age	Comments
1	T-097, St. Id	Tableware - unidentified	Rim	1	Refined earthenware	Whiteware	Gold paint	Gilded	Euro- American	
2	T-097, St. Id	Hollowware - rice bowl	Body	1	Porcelain	--	Celadon glaze	--	Asian	Asian blue character on base
3	T-097, St. Id	Hollowware - rice bowl	Base to body	1	Porcelain	--	Blue swirls, painted underglaze	--	Asian, probably Japanese	High foot

Table 35. Downtown Waterfront, T-100, Ceramic Vessels

Acc. # 100-A-	Prov.	Type	Portion	No.	Paste	Ware	Decoration	Rim Motif	Origin; Age	Comments
1	T-100, St. II	Flatware - plate	Base to body	1	Refined earthenware	Whiteware	Transfer print - blue scenic	--	Euro- American	Minarets and plants

Table 36. Downtown Waterfront, T-101, Ceramic Vessels

Acc. # 101-A-	Prov.	Type	Portion	No.	Paste	Ware	Decoration	Rim Motif	Origin; Age	Comments
1	T-101, SIHP #-7427 Feature 14	Toiletry - chamber pot	Rim to body; handle	1	Refined earthenware	Whiteware	Large polychrome floral, Lokelani- style, painted underglaze	Red band (int.)	Euro- American	Red flowers, yellow and green "leaves" on exterior
2	T-101, SIHP #-7427 Feature 14,	Flatware - plate or platter	Rim	1	Refined earthenware	Whiteware	Blue geometric transfer print	Scallop- pattern	Euro- American	
3	T-101, SIHP #-7427 Feature 14	Hollowware - teacup	Base to rim	1	Porcelain	--	Transfer print; Dashed Lines; blue phoenix design	Two blue bands	Japanese, 1870s- 1920s	Asian character on base

Table 37. Downtown Waterfront, T-104, Ceramic Vessels

Acc. # 104-A-	Prov.	Type	Portion	No.	Paste	Ware	Decoration	Rim Motif	Origin; Age	Comments
1	T-104, St. If	Hollowware - rice bowl	Base to rim	7	Porcelain	--	Celadon glaze	--	Asian	Asian characters on base
2	T-104, St. If	Hollowware - bowl	Base and body	20	Porcelain	--	Four flowers, painted overglaze	--	Chinese	
3	T-104, St. If	Hollowware - possible pitcher	Base to body	1	Refined earthenware	Whiteware	Blue transfer print	--	Euro- American	Blue garland on base; 10.0 cm (D)

Acc. # 104-A-	Prov.	Type	Portion	No.	Paste	Ware	Decoration	Rim Motif	Origin; Age	Comments
4	T-104, St. Ig	Jar	Base to body	1	Stoneware	--	Painted underglaze	--	Euro- American	Thick brown bands on exterior
5	T-104, St. If	Tableware - unidentified	Body	1	Refined earthenware	Whiteware	Painted underglaze	--	Euro- American	Blue, white, green bands
6	T-104, St. If	Hollowware - flared bowl	Body	1	Refined earthenware	Whiteware	Transfer print	--	Euro- American	
7	T-104, St. If	Tableware - unidentified	Body	1	Porcelain	Whiteware	Painted underglaze	--	Banded?	Blue band
8	T-104, St. If	Tableware - unidentified	Body	1	Porcelain	--	Bamboo motif painted underglaze	--	Chinese	
9	T-104, St. Ig	Jar	Base to body	1	Stoneware	--	Brown slip glaze	--	Chinese	
10	T-104, St. Ih	Hollowware - small mug	Body	1	Refined earthenware	Whiteware	Painted underglaze	--	Euro- American	

Table 38. Downtown Waterfront, T-108, Ceramic Vessels

Acc. # 108-A-	Prov.	Type	Portion	No.	Paste	Ware	Decoration	Rim Motif	Origin; Age	Comments
1	T-108, St. Id	Hollowware - flared bowl	Base to rim	1	Porcelain	--	--	--	Euro- American	
2	T-108, St. Id	Hollowware - flared bowl	Body	1	Refined earthenware	Yellowware	Annular banded	Cobalt blue, engine turned	Euro- American	
3	T-108, St. Id	Flatware - saucer	Base to body	1	Refined earthenware	Whiteware	--	--	Euro- American	
4	T-108, St. Id	Flatware - plate	Body to rim	1	Refined earthenware	Whiteware	Painted underglaze	Molded, blue edge decorated	Euro- American	
5	T-108, St. Id	Tableware - unidentified	Body	1	Refined earthenware	Whiteware	--	--	Euro- American	

Table 39. Downtown Waterfront, T-112, Ceramic Vessels

Acc. # 112-A-	Prov.	Type	Portion	No.	Paste	Ware	Decoration	Rim Motif	Origin; Age	Comments
1	T-112, St. Ib	Flatware - plate	Rim	1	Refined earthenware	Whiteware	Blue, painted underglaze; relief molded	Molded, blue edge decorated	Euro- American	
2	T-112, St. Ib	Flatware - saucer	Rim	1	Refined earthenware	Whiteware	Blue floral transfer print	Fleur-de- lis along rim	Euro- American	
3	T-112, St. Ib	Flatware - saucer	Body to rim	1	Refined earthenware	Whiteware	Pale blue transfer print	None	Euro- American	
4	T-112, St. Ib	Flatware - plate	Base to body	1	Refined earthenware	Whiteware	Cobalt blue, flow blue transfer print	--	Euro- American	

Table 40. Downtown Waterfront, T-115, Ceramic Vessels

Acc. # 115-A-	Prov.	Type	Portion	No.	Paste	Ware	Decoration	Rim Motif	Origin; Age	Comments
1	T-115, St. Id	Bottle	Complete	1	Stoneware	--	Ferrigenous (upper) and bristol (lower) glazes	--	British; 1835-1900	

#### **4.10.2 Bottles**

##### **T-096**

Seventeen small glass fragments from a minimum of four bottles were collected from T-096, Stratum Ii, SIHP #50-80-14-7427 (Table 41). Two bottles were a dark olive green, usually used on nineteenth century spirits bottles, but these bottles continued to be made into the twentieth century. Two clear bottle fragments can be dated to the post 1870 period based on the color. An amber bottle fragment was dated to post-1800.

##### **T-097**

Six glass fragments from a minimum of three bottles were collected from T-097, Stratum Ic and one complete glass jar was collected from Stratum Id (Table 42). One aqua bottle has a PRIOF lip finish, a crown-type lip with an added ledge to make it easier to remove the metal cap. It was used during the 1920s and 1930s, but was gradually replaced by the competing regular crown lip seen on most bottles today (BLM/SHA 2013). One base fragment has the logo and embossed letters for the cleaner, "CLOROX." The style of the letters is similar to bottles made in the 1940s (Clorox 2013).

##### **T-100**

One complete dark olive spirits bottle was collected from T-100, Stratum II, SIHP #50-80-14-7427 (Table 43). It has an applied lip and thus dates to the nineteenth century.

##### **T-101**

Eight fragments from eight bottles were collected from T-101, one aqua bottle body fragment from Stratum Ic, and 7 bottle/bottle fragments from the SIHP #7427 Feature 14 (Table 44). The bottles from SIHP #7427 Feature 14 interface consist of five green/olive spirits bottles, four dating from the 1860s to the 1920s based on the type of mold (turn mold) and one dating to post-1800, two brown beer bottles, and one bottle of unknown function. One beer bottle was manufactured by the Wisconsin Glass Co., and has a mark embossed on the base which they used from 1885 to 1900. The second beer bottle was made by the Frederick Heitz Glass Works, St. Louis, Mo., which operated from 1883 to 1896. This mark was attributed to this company by David Whitten (2013), who corrected an earlier attribution of the mark to an English glassmaker by Toulouse (1971:201). The dated bottles from this test excavation are all mold-blown bottles, made from ca. 1860 to the 1920s. All of the bottles are probably alcohol bottles, possibly from the 1880s to 1890s period.

##### **T-104**

A total of 46 glass bottle/bottle fragments, from a minimum of 20 bottles, were collected from T-104, 12 bottles from Stratum If, seven bottles from Stratum Ig, and one bottle from Stratum Ij (Table 45). In Stratum If, eight fragments are from an aqua soda bottle from the Crystal Soda Works, Honolulu. Elliott and Gould (1988:82-83) dated this style from the 1880s to 1890s. A clear bottle body fragment can be dated to post-1870 based on the color, and a clear lip fragment can be dated to 1820-1890, as it is an applied lip finish. In Stratum Ig, there are least four spirits bottles, all of an olive or dark olive color, typical of pre-twentieth century bottles. Four bottle fragments of the same aqua color were found in Stratum Ij. One base fragment has a mark like an open pontil, which indicates a mouth-blown bottle, but one body fragment has an embossed

letter, of the type found on mold-blown bottles. Either there are two different bottles represented here, or the bottle was blown in an early dip mold with a removable plate for the embossing on the body. Although the sample for this test excavation is small, there does seem to be some difference in the types of bottles for the three strata. All of the bottles from this test excavation likely date to the mid-to-late nineteenth century.

#### **T-112**

Seven glass fragments from seven bottles were collected from T-112, Stratum Ib (Table 46). At least two of the bottles are the typical dark olive bottles with push-up/kick-up bases made in a turn mold, manufactured from 1860 to the 1920s. Two of the lips, probably part of the same bottle, have an applied finish, indicating a date range of 1820–1890.

#### **T-114**

Five glass fragments from a minimum of four bottles were collected from T-114, Stratum Ic (Table 47). Three fragments of dark olive green glass and two fragments of clear glass were collected. The dark olive green glass lip fragment had an applied finish, which dates from 1820 to 1890. The clear bottle fragment dates to post–1870s.

#### **T-115**

Five glass fragments from a minimum of four bottles were collected from T-115, Stratum Id (Table 48). One dark olive green spirits bottle fragment is a push-up base, made in a turn mold, which can be dated to 1860–1920s.



Table 41. Downtown Waterfront, T-096, Glass Bottles

Acc. # 096-A-	Prov.	Type	Portion	No.	Lip Type	Lip Finish	Color	Height (cm)	Dia. (cm)	Base Shape	Mold	Age	Comments
6	T-096, St. Ii, SIHP #-7427	Bottle	Base	1	--	--	Amber	--	--	--	--	1800 - post	
7	T-096, St. Ii, SIHP #-7427	Bottle	Body	2	--	--	Clear	--	--	--	--	1870s - post	
8	T-096, St. Ii, SIHP #-7427	Bottle	Body	3	--	--	Olive, dark	--	--	--	--		
9	T-096, St. Ii, SIHP #-7427	Bottle	Body	11	--	--	Olive, dark	--	--	--	--		

Table 42. Downtown Waterfront, T-097, Glass Bottles

Acc. # 097-A-	Prov.	Type	Portion	No.	Lip Type	Lip Finish	Color	Height (cm)	Dia. (cm)	Base Shape	Mold	Age	Comments
4	T-097, St. Ic	Bottle, cleaner	Base	1	--	--	Amber	--	--	Round	--	1940s	"REG /CLOROX / PAT" on body (Clorox 2013)
5	T-097, St. Ic	Bottle	Base	1	--	--	Aqua	--	--	Square/ rectangular	--	ca. 1865- post	Embossed on base - a diamond; on heel "1500"
6	T-097, St. Ic	Bottle	Neck-lip	1	Priof	ABM	Aqua	--	--	--	--	1920s- 1930s	"REGISTERED PATENTED 'PRIOF'" (BLM/SHA 2013)
7	T-097, St. Ic	Bottle	Base	1	--	--	Clear	--	--	--	--	1870s- post	
8	T-097, St. Ic	Bottle	Lip	1	Patent	ABM	Clear	--	--	--	--	1907- post	
9	T-097, St. Id	Jar	Complete	1	Contin- uous thread	ABM	Clear	7.0	4.4	Round	2 pc- cup	1920- post	

Table 43. Downtown Waterfront, T-100, Glass Bottles

Acc. # 100-A-	Prov.	Type	Portion	No.	Lip Type	Lip Finish	Color	Height (cm)	Dia. (cm)	Base Shape	Mold	Age	Comments
2	T-100, St. II, SIHP #- 7427	Bottle, spirits	Complete	1	Double ring	Applied	Olive, dark	23.5	6.0	Round	2 pc.	1820- 1890	Kick-up base

Table 44. Downtown Waterfront, T-101, Glass Bottles

Acc. # 101-A-	Prov.	Type	Portion	No.	Lip Type	Lip Finish	Color	Height (cm)	Dia. (cm)	Base Shape	Mold	Age	Comments
4	T-101, St. Ic	Bottle	Body	1	--	--	Aqua	--	--	--	--		Asian character, or I or T embossing
5	T-101, SIHP #-7427 Feature 14	Bottle, beer	Base-neck	1	--	--	Brown	20.0+	6.5	Round	--	1885- 1900	"WIS G CO/13/ MILW." - embossed on base (Lockhart et al. 2013:2; Whitten 2013)
6	T-101, SIHP #-7427 Feature 14	Bottle, beer	Base- body	1	--	--	Brown	13.0+	7.5	Round	--	1883- 1896	"FHGW 8" - embossed on base; for Frederick Heitz Glass Works, St. Louis, Mo. (1883- 1896) (Whitten 2013)
7	T-101, SIHP #-7427 Feature 14	Bottle, spirits	Complete	1	Ring	--	Green	24.0	6.5	Round	Turn	1860- 1920s	Base: push up
8	T-101, SIHP #-7427 Feature 14	Bottle, spirits	Base-neck	1	--	--	Green, light	23.0+	6.0	Round	Turn	1860- 1920s	Base: push up
9	T-101, SIHP #-7427 Feature 14	Bottle, spirits	Complete	1	Double ring	Applied	Olive, dark	22.0	6.0	Round	Turn	1860- 1920s	Base: kick up

Acc. # 101-A-	Prov.	Type	Portion	No.	Lip Type	Lip Finish	Color	Height (cm)	Dia. (cm)	Base Shape	Mold	Age	Comments
10	T-101, SIHP #-7427 Feature	Bottle	Base- body	1	--	--	Olive, dark	8.5+	2.5	Round	--	1800- post	
11	T-101, SIHP #-7427 Feature 14	Bottle, spirits	Complete	1	Double ring	Applied	Olive, dark	24.0	6.0	Round	Turn	1860- 1920s	Base: kick up

Table 45. Downtown Waterfront, T-104, Glass Bottles

Acc. # 104-A-	Prov.	Type	Portion	No.	Lip Type	Lip Finish	Color	Height (cm)	Dia. (cm)	Base Shape	Mold	Age	Comments
11	T-104, St. If	Bottle	Body	3	--	--	Amber	--	--	--	--		
12	T-104, St. If	Bottle	Body	1	--	--	Amber	--	--	Round	--		
13	T-104, St. If	Bottle, soda	Base- shoulder	4	Blob	Applied	Aqua	16.5	6.0	Round	2 pc. cup	1880s- 1890s	"TRADE MARK J.A.P." - embossed on base; "CRY - SOD - HO - " Crystal Soda Works, Honolulu, HI (Elliot and Gould 1988:82-83)
14	T-104, St. If	Bottle, beverage	Lip	1	Brandy	Applied	Clear	--	--	Round?	2 pc.	1820- 1890	
15	T-104, St. If	Bottle, soda	Lip	1	Blob	Applied	Aqua	--	--	Round	--	Possible 1880s	Possible Crystal Soda Works
16	T-104, St. If	Bottle	Body	1	--	--	Aqua	--	--	--	--		
17	T-104, St. If	Bottle	Body	1	--	--	Blue, cobalt	--	--	--	--		
18	T-104, St. If	Bottle	Body	1	--	--	Clear	--	--	--	--	1870s- post	

Acc. # 104-A-	Prov.	Type	Portion	No.	Lip Type	Lip Finish	Color	Height (cm)	Dia. (cm)	Base Shape	Mold	Age	Comments
19	T-104, St. If	Bottle, soda	Body	3	--	--	Aqua	--	--	Round	--	Possible 1880s- 1910s	" - NOL - " [HONOLULU] embossed - possible frags. of Crystal Soda Works
20	T-104, St. If	Bottle	Body	2	--	--	Green, light	--	--	--	--		
21	T-104, St. If	Bottle	Body	5	--	--	Olive, dark	--	--	Round?	--		
22	T-104, St. If	Bottle	Body	11	--	--	Aqua	--	--	--	--		
23	T-104, St. Ig	Bottle, spirits	Base	1	--	--	Olive, dark	--	8.0	Round	No seams	pre- 1890s	Base: kick up
24	T-104, St. Ig	Bottle, spirits	Base	1	--	--	Olive, dark	--	--	Round	No seams	pre- 1890s	Base: kick up
25	T-104, St. Ig	Bottle, spirits	Base	1	--	--	Olive, dark	--	7.0	Round	No seams	pre- 1890s	Base: push up
26	T-104, St. Ig	Bottle, spirits	Base	1	--	--	Olive	--	2.8	Round	--	1800- post	Base: push up
27	T-104, St. Ig	Bottle	Body	1	--	--	Olive, dark	--	--	--	--		
28	T-104, St. Ig	Bottle	Neck	1	--	--	Olive, dark	--	--	--	--		
29	T-104, St. Ig	Bottle	Neck	2	--	--	Olive, dark	--	--	--	--		
30	T-104, St. Ij	Bottle	Base (3); body (1)	4	--	--	Aqua	--	4.0	Round	--	1810- post	Looks like open pontil on base; but bottle has embossing on body "...nk"

Table 46. Downtown Waterfront, T-112, Glass Bottles

Acc. # 112-A-	Prov.	Type	Portion	No.	Lip Type	Lip Finish	Color	Height (cm)	Dia. (cm)	Base Shape	Mold	Age	Comments
5	T-112, St. Ib	Bottle	Body	1	--	--	Brown	--	--	--	--		
6	T-112, St. Ib	Bottle	Body	1	--	--	Olive	--	--	--	--		
7	T-112, St. Ib	Bottle, spirits	Base- body	1	--	--	Olive, dark	--	6.7	Round	Turn	1860- 1920s	Base: kick up
8	T-112, St. Ib	Bottle, spirits	Base- body	1	--	--	Olive, dark	--	6.7	Round	Turn	1860- 1920s	Base: kick up
9	T-112, St. Ib	Bottle, beverage	Neck-lip	1	Laid- on-ring	--	Olive, dark	--	--	--	--		
10	T-112, St. Ib	Bottle	Neck-lip	1	Brandy	Applied	Olive, dark	--	--	--	--	1820- 1890	
11	T-112, St. Ib	Bottle, beer	Neck-lip	1	Brandy	Applied	Olive, dark	--	--	--	--	1820- 1890	

Table 47. Downtown Waterfront, T-114, Glass Bottles

Acc. # 114-A-	Prov.	Type	Portion	No.	Lip Type	Lip Finish	Color	Height (cm)	Dia. (cm)	Base Shape	Mold	Age	Comments
1	T-114, St. Ic	Bottle, spirits	Neck-lip	1	Brandy	Applied	Dark olive green	--	--	--	--	1820- 1890	
2	T-114, St. Ic	Bottle, spirits	Base	1	--	--	Dark olive green	--	--	--	--		
3	T-114, St. Ic	Bottle, spirits	Base	1	--	--	Dark olive green	--	--	--	--		
4	T-114, St. Ic	Bottle, beverage	Body- neck	2	--	--	Clear	--	--	--	--	1870s- post	

Table 48. Downtown Waterfront, T-115, Glass Bottles

Acc. # 115-A-	Prov.	Type	Portion	No.	Lip Type	Lip Finish	Color	Height (cm)	Dia. (cm)	Base Shape	Mold	Age	Comments
2	T-115, St. Id	Bottle, ale	Body	1	--	--	Amber	--	--	--	--		
3	T-115, St. Id	Bottle	Body	1	--	--	Dark olive green	--	--	--	--		
4	T-115, St. Id	Bottle	Body	2	--	--	Green, light	--	--	--	--		
5	T-115, St. Id	Bottle, spirits	Base- body	1	--	--	Olive, dark	5.0+	8.0	Round	Turn	1860- 1920s	Base: push up

#### 4.10.3 Miscellaneous Historic Artifacts

Miscellaneous artifacts were collected from 11 of the Downtown Waterfront test excavations. Eight brick, four metal, one glazed ceramic, one wood, one slag, one composite, and one possible slate fragments/artifact were collected from T-096 (Table 49). Based on width and thickness, the manufacture dates of the bricks may range from 1807 to 1860, with one standard-sized fragment with a manufacture date between 1886 and 1918 (Meide 1994:25). Also collected were a glazed ceramic architectural element, wood button; building materials, including a cut nail (used ca. 1790–1920; IMACS 1992), wire nails (first imported to Hawai'i in 1894; Hurst and Allen 1992:59), slag, and slate; and a composite mass of metal and leather.

One each of composite, stoneware, glass, plant seed, leather, and brick fragments/artifacts were collected from T-097 (Table 50). Collected building materials consist of a standard-sized brick fragment that dates from 1918 to 1978 (Meide 1994:25), an electrical insulator cleat, and a basalt/mortar/concrete mass. Also collected were a leather strap or harness, a *Caesalpinia bonduc* seed pod (Hawaiian pearl; sometimes used by children as marbles or strung in *lei* [Wichman and St. John 1990:93]), and an amethyst color glass fragment with manganese addition that dates from 1820 to the 1930s (BLM/SHA 2013).

A single red brick fragment was collected from T-098 (Table 51). One composite concrete slab fragment consisting of basalt, mortar, and concrete was collected from T-099 (Table 52).

Fragments collected from T-100 include four material types, including three metal, two composite, one stoneware, and one glass fragments/artifacts (Table 53). Building materials consist of a composite concrete drainage pipe, a composite concrete slab, and a very corroded metal handle.

Two brick, one composite, one bone, and one glass fragments/artifacts were collected from T-101 (Table 54). The original thickness of one of the bricks is intact, indicating it is a standard size. However, the same thickness was used to manufacture standard bricks from 1886 to 1918 and standard face bricks from 1918 to 1978 (Meide 1994:25).

A total of 23 building material fragments/artifacts were collected from T-104, including eight brick, five stone, five metal, two slag, one kaolin, one crystalline, and one slate fragments/artifacts (Table 55). Brick measurements do not conform with standard brick sizes (Meide 1994:25), so no possible manufacture dates were determined.

The four other test excavations all contained construction material fragments, including one machine-made brick fragment from T-104A (Table 56); one machine-made brick fragment and a corroded metal fragment from T-108 (Table 57); one composite fragment of mortar from T-112 (Table 58); and, two metal, one tile, one plastic, and one glass fragments/artifacts from T-114 (Table 59).

Table 49. Downtown Waterfront, T-096, Miscellaneous Historic Artifacts

Acc. # 096-A-	Prov.	Type	Material	Portion	No.	Measurements	Description
10	T-096, St. Id, SIHP #-7427	Brick	Fired clay	Fragment	2	--	Red color
11	T-096, St. Id, SIHP #-7427	Brick	Fired clay	Fragment	2	--	Yellow color
12	T-096, St. Id, SIHP #-7427	Brick	Fired clay	Fragment	1	6 3/4+ x 4 x 2 1/2 in.	Red color; machine-made; age: 1829-1834 or ca. 1900 (Meide 1994:25)
13	T-096, St. Id, SIHP #-7427	Brick	Fired clay	Fragment	1	4+ x 4 x 2 1/4 in.	Yellow color; circular impression on one long side; age: 1886 to 1918 (Meide 1994:25)
14	T-096, St. Id, SIHP #-7427	Brick	Fired clay	Fragment	1	2 3/4+ x 4 1/4 x 2 1/2 in.	Tan-yellow color; machine-made; age: 1807-1860 (Meide 1994:25)
15	T-096, St. Id, SIHP #-7427	Brick	Fired clay	Fragment	1	2 3/4+ x 4 1/4 x 2 1/2 in.	Tan-yellow color; machine-made; Age: 1807-1860 (Meide 1994:25)
16	T-096, St. Id, SIHP #-7427	Metal	Metal	Fragment	1	--	Possible iron ore or hematite
17	T-096, St. Id, SIHP #-7427	Nail	Metal	Complete	1	20.0 (L) x 1.5 (D) cm.	Large nail, but not tapered at end like a spike
18	T-096, St. Id, SIHP #-7427	Nail	Metal	Fragment	3	6.2+ (L) cm.	Square profile; possibly cut nails; age: ca. 1790 to 1920 (IMACS 1992)
19	T-096, St. Id, SIHP #-7427	Architectural Item	Glazed ceramic	Fragment	1	1.7 (D) cm.	Painted near bore "TITA..."; threaded bore
20	T-096, St. Ii, SIHP #-7427	Button	Wood	Complete	1	2.0 (D) cm.	4-hole; recessed panel; convex-concave; polished
21	T-096, St. Ii, SIHP #-7427	Slag	Slag	Fragment	2	8.0 (L) x 5.0 (W) cm.	Chunk of slag with small piece broken off
22	T-096, St. Ii, SIHP #-7427	Slate?	Slate?	Fragment	1	3.0 (L) x 0.5 (W) cm.	
23	T-096, St. Ii, SIHP #-7427	Unknown	Composite	Fragment	1	--	Mass of metal and leather
24	T-096, St. Ii, SIHP #-7427	Unknown	Metal	Fragment	1	14.0 (L) x 3.0 (W) cm.	Rusted object
25	T-096, St. Id, SIHP #-7427	Brick	Fired clay	Fragment	1	--	Yellow color; coral inclusions



Acc. # 096-A-	Prov.	Type	Material	Portion	No.	Measurements	Description
26	T-096, St. Id, SIHP #-7427	Brick	Fired clay	Fragment	1	3+ x 3 1/2 x 2 1/4 in.	Red color; machine-made

Table 50. Downtown Waterfront, T-097, Miscellaneous Historic Artifacts

Acc. # 097-A-	Prov.	Type	Material	Portion	No.	Measurements	Description
10	T-097, SIHP #-7427 Feature 6	Building material	Composite	Fragment	1	13.5+ (L) cm.	Basalt/mortar/concrete mass
11	T-097, St. Ic	Insulator cleat	Stoneware	Fragment	1	9.5 (L) x 1.5 (D) cm.	Rectangular cleat, unglazed
12	T-097, St. Ic	Pressed glass	Glass	Fragment	1	--	Amethyst color; manganese addition used from 1820-1930s; fluted pattern
13	T-097, St. Ic	Seed, burr	Plant seed	Complete	1	2.0 (D) cm.	<i>Caesalpinia bonduc</i> ; Hawaiian pearl; sometimes used by children as marbles; sometimes strung in lei (Wichman and St. John 1990:93)
14	T-097, St. Ic	Strap - harness?	Leather	Fragment	4	10.0+ (L) x 2.0 (W) x. 0.2 (T) cm.	Seams sewn; metal on one end
15	T-097, SIHP #-7427 14	Brick	Fired clay	Fragment	1	7+ x 3 3/4 x 2 1/2 in.	Red color; machine-made; age: 1918-1978 (Meide 1994:25)

Table 51. Downtown Waterfront, T-098, Miscellaneous Historic Artifacts

Acc. # 098-A-	Prov.	Type	Material	Portion	No.	Measurements	Description
1	T-098, St. Ic	Brick	Fired clay	Fragment	1	--	Red color

Table 52. Downtown Waterfront, T-099, Miscellaneous Historic Artifacts

Acc. # 099-A-	Prov.	Type	Material	Portion	No.	Measurements	Description
1	T-099, SIHP #-7427 Feature 9	Concrete slab	Composite	Fragment	1	17.2+ (L) cm.	Basalt/mortar/concrete slab

Table 53. Downtown Waterfront, T-100, Miscellaneous Historic Artifacts

Acc. # 100-A-	Prov.	Type	Material	Portion	No.	Measurements	Description
3	T-100, SIHP #-7427 Feature 11,	Concrete pipe	Composite	Fragment	1	22.5 (L) x 19.3 (D) x 9.0 (T) cm.	Drainage pipe
4	T-100, SIHP #-7427 Feature 11,	Unknown	Stoneware	Fragment	1	--	Buff color; brown slip; architectural; not from a vessel
5	T-100, SIHP #-7427 Feature 10,	Concrete slab	Composite	Fragment	1	13.2+ (L) cm.	Concrete slab
6	T-100, St. II, SIHP #-7427	Handle	Metal	Fragment	1	4.5 (L) x 0.5 (W) cm.	Very corroded
7	T-100, St. II, SIHP #-7427	Unknown	Glass	Fragment	1	--	Heat-modified, warped
8	T-100, St. II, SIHP #-7427	Unknown	Metal	Fragment	1	--	Flat metal, mesh-like pattern
9	T-100, St. II, SIHP #-7427	Unknown	Metal	Fragment	1	--	Unidentifiable metal mass

Table 54. Downtown Waterfront, T-101, Miscellaneous Historic Artifacts

Acc. # 101-A-	Prov.	Type	Material	Portion	No.	Measurements	Description
12	T-101, St. Ib	Brick	Fired clay	Fragment	1	N/A x N/A x 2 1/4 in.	Red color; machine-made; age: 1886-1978 (Meide 1994:25)
13	T-101, St. Ic	Insulator	Composite	Complete	1	--	White porcelain and metal

Acc. # 101-A-	Prov.	Type	Material	Portion	No.	Measurements	Description
14	T-101, SIHP #-7427 Feature 14	Bead?	Bone	Fragment	1	2.4+ (L) x 0.4 (D) cm.	Tubular bead; offset machine-drilled hole
15	T-101, SIHP #-7427 Feature 14	Brick	Fired clay	Fragment	2	N/A	Red color
16	T-101, SIHP #-7427 Feature 14	Strap	Metal	Fragment	1	17.6 (L) x 1.0 (W) cm.	
17	T-101, SIHP #-7427 Feature 14	Window glass	Glass	Fragment	1	--	Clear small fragment

Table 55. Downtown Waterfront, T-104, Miscellaneous Historic Artifacts

Acc. # 104-A-	Prov.	Type	Material	Portion	No.	Measurements	Description
31	T-104, St. Ig	Pipe stem	Kaolin	Fragment	1	3.1 (L) x 0.8 (D) cm.	Two incised bands horizontally around tube; many vertical lines from the bands to the end; bore 0.2 (D)
32	T-104, St. Ig	Stone	Stone	Fragment	1	6.4 (L) x 4.2 (W) x 2.0 (T) cm.	Large smooth limestone cobble with quartz inclusions; imported?
33	T-104, St. Ij	Basalt	Stone	Complete	1	10 1/2 x 4 x 3 cm.	Grey color; cut/dressed basalt; rectangular
34	T-104, St. Id	Brick	Fired clay	Fragment	1	4+ x 3 1/4 x 2 in.	Red color; machine-made
35	T-104, St. Id	Brick	Fired clay	Fragment	1	2+ x 3 1/2 x 2 1/4 in.	Red color; machine-made
36	T-104, St. Id	Brick	Fired clay	Fragment	2	5 1/2+ x 3 1/2 x 2 in.	Red color; machine-made
37	T-104, St. Id	Brick	Fired clay	Fragment	1	2+ x 3 x 2	Red color; machine-made
38	T-104, St. If	Basalt	Stone	Fragment	5	--	Grey color; cut/dressed basalt
39	T-104, St. If	Basalt	Stone	Fragment	1	--	Grey color; cut/dressed basalt
40	T-104, St. If	Basalt	Stone	Fragment	1	--	Basalt stone
41	T-104, St. If	Brick	Fired clay	Fragment	1	--	Red color
42	T-104, St. If	Brick	Fired clay	Fragment	1	3+ x 4 1/4 x 2 1/2 in.	Yellow color; machine-made

Acc. # 104-A-	Prov.	Type	Material	Portion	No.	Measurements	Description
43	T-104, St. If	Brick	Fired clay	Fragment	1	N/A x N/A x 2 1/2 in.	Red color; machine-made
44	T-104, St. If	Brick	Fired clay	Fragment	1	N/A x N/A x 2 1/4 in.	Grey color
45	T-104, St. If	Metal	Metal	Fragment	1	--	
46	T-104, St. If	Metal frag.	Metal	Fragment	1	1.1 (L) x 1.1 (W) x 0.3 (T) cm.	Small, rusty metal piece
47	T-104, St. If	Metal frag.	Metal	Fragment	1	15.5 (L) x 2.0-4.0 (W) x 0.1-2.0 (T) cm.	Conglomerate with shell and stone on one end
48	T-104, St. If	Metal frag.	Metal	Fragment	1	3.0 (L) x 1.0 (W) x 1.0 (T) cm.	Rusty
49	T-104, St. If	Nail	Metal	Complete	1	2.9 (L) x 0.3-1.0 (W) x 0.3 (T) cm.	Round head; age: ca. 1850 to the present (IMACS 1992)
50	T-104, St. If	Possible slag	Slag	Fragment	1	2.7 (L) x ~0.5 (W) x ~0.5 (T) cm.	Small brittle piece
51	T-104, St. If	Rock	Crystalline - rock	Fragment	1	3.0 (L) x 2.5 (W) x 1.0 (T) cm.	Rock with crystalline structure and metallic luster; fairly hard and light; probably NOT volcanic glass
52	T-104, St. If	Slag	Slag	Fragment	1	--	Factory slag
53	T-104, St. If	Slate	Slate	Fragment	1	--	Slate

Table 56. Downtown Waterfront, T-104A, Miscellaneous Historic Artifacts

Acc. # 104A-A-	Prov.	Type	Material	Portion	No.	Measurements	Description
1	T-104A, St. Id	Brick	Fired clay	Fragment	1	N/A x N/A x 2 in.	Red color; machine-made

Table 57. Downtown Waterfront, T-108, Miscellaneous Historic Artifacts

Acc. # 108-A-	Provenience	Type	Material	Portion	No.	Measurements	Description
6	T-108, St. Id	Brick	Fired clay	Fragment	1	5 1/2+ x N/A x 2 in.	Red color; machine-made
7	T-108, St. Id	Corroded metal	Metal	Fragment	1	--	

Table 58. Downtown Waterfront, T-112, Miscellaneous Historic Artifacts

Acc. # 112-A-	Provenience	Type	Material	Portion	No.	Measurements	Description
12	T-112, St. Ib	Mortar	Composite	Fragment	1	--	Whitish/brown

Table 59. Downtown Waterfront, T-114, Miscellaneous Historic Artifacts

Acc. # 114-A-	Provenience	Type	Material	Portion	No.	Measurements	Description
5	T-114, St. Ic	Can	Metal	Fragment	1	--	Aluminum; red ACL at top "Little Old ... "
6	T-114, St. Ic	Nail, wire	Metal, iron	Complete	1	4.2 (L) cm.	Corroded; age: ca. 1850 to the present (IMACS 1992); first imported to Hawai'i in 1894-1895 (Hurst and Allen 1992)
7	T-114, St. Ic	Tile	Earthenware	Fragment	1	--	Grayish white; glazed on one side
8	T-114, St. Ic	Unknown	Plastic	Fragment	1	--	Red; flat; with cloth at one end
9	T-114, St. Ic	Window glass	Glass	Fragment	1	--	Clear small fragment

#### **4.10.4 Summary of Artifact Assemblage from Downtown Waterfront**

Twenty test excavations in the Downtown Waterfront area had historic artifacts. In 17 of these excavations, the artifacts consist of bottles and ceramics that generally date to the 1870s–1920s period. One test excavation (T-097) on the west end of the Downtown Waterfront area has bottles that date only to the early-to mid-twentieth century (1920s–1940s). The test excavation (T-096) at the extreme western end does not have any dated bottles. T-097 (and perhaps T-096) is more similar to the Iwilei test excavations than the other 18 test excavations along the Honolulu waterfront, probably reflecting the later development of that area. The ceramics consist of both Euro-American and Asian wares dating to the late nineteenth century. The bottles are dominated by spirits (beer, ale, whiskey, etc.) bottles. The miscellaneous artifacts are dominated by construction material dating to the late 1800s to mid-1900s.

## **4.11 Artifact Analysis for West Kaka‘ako (Test Excavations 116 through 161)**

Historic artifacts were collected from 37 of the 53 test excavations in West Kaka‘ako (T-116 through T-134, T-136 through T-143, T-145, and T-148A through T-153). A total of 643 historic artifact fragments were collected, consisting of 210 ceramic vessel fragments, 261 glass bottle/bottle fragments, and 172 miscellaneous items.

Historic artifacts were collected from five cultural resources: SIHP #50-80-14-7428 (T-119A Feature 1 and Stratum IIa; T-120A Feature 11), SIHP #50-80-14-2963 (T-122 Stratum II; T-123 Stratum II), SIHP #50-80-14-7189 (T-130 Stratum II; T-132 Stratum II; T-134 Stratum II; T-138 Stratum II; and T-140 Stratum II), SIHP #50-80-14-7124 (T-132 Stratum II), and SIHP #50-80-14-5820 (T-141 Features 1 and 31; T-142 Feature 7, and T-151 Feature 23).

### **4.11.1 Ceramics**

#### **T-116**

Six fragments from six vessels were collected from T-116, Stratum IIj (Table 60). These consisted of one Chinese porcelain rice bowl fragment with a Sweet Pea motif, three Euro-American ironstone fragments, and two British two-tone (tan/white), ferruginous/Bristol glaze stoneware bottles dating to the latter half of the nineteenth century.

#### **T-117**

Thirty-seven (37) ceramic fragments from four vessels were collected from T-117, Stratum IIc (Table 61). Thirty-three of the fragments are from one large ironstone bowl, possibly a wash basin. The other vessels consist of a Chinese porcelain rice bowl with a “Bamboo” motif and two large Chinese stoneware vessels.

#### **T-118**

One Euro-American whiteware plate fragment was collected from T-118, Stratum IIb (Table 62).

#### **T-119A**

Four fragments from three vessels, all Asian porcelain were collected from T-119A, SIHP#-7428 Feature 1a and Stratum IIa (Table 63). Two fragments from a Chinese porcelain plate/dish had an “Om” motif while another had an “Allah” motif. The remaining vessel is a porcelain rice bowl, probably Japanese.

#### **T-120B**

Sixteen (16) fragments from seven vessels were collected from T-120B, Strata IIc-II (Table 64). These vessels consist of one German mineral water/ale stoneware bottle (pre-1920), two Euro-American whiteware vessels (including one flared bowl with an annular banded and dendritic mocha decoration), two Euro-American yellowware vessels (one nappy and one possible large bowl), one Euro-American porcelain plate or platter with a scenic transfer print, and one Chinese hand-painted cup or bowl.

**T-121**

Three ceramic fragments from two vessels were collected from T-121, Stratum Ic (Table 65). They consist of one Euro-American whiteware bowl with a hand-painted cut sponge motif and one English transfer-printed Ironstone plate made by the English pottery, Moore Brothers, and dated to 1872-1905 (Stoke-on-Trent 2013).

**T-122**

One fragment of a porcelain Asian teapot was collected from T-122, Stratum II, SIHP #50-80-14-2963 (Table 66). The teapot has painted figures of a man and a woman in kimonos.

**T-124**

Three fragments of two vessels were collected from T-124, Stratum Id (Table 67). They are an undecorated Euro-American Ironstone plate and a Chinese porcelain bowl with a Sweet Pea motif.

**T-125**

Six fragments from five Euro-American vessels were collected from T-125, Stratum Id and Ie (Table 68). They consist of a stoneware crock, a possible stoneware bottle, two Euro-American whiteware vessels (one has a hand-painted large floral motif), and an ironstone cup or mug with molded flutes.

**T-126**

Six fragments from five vessels were collected from T-126, Stratum Ic (Table 69). They consist of a Chinese porcelain plate/dish with an "Allah" motif, a Chinese porcelain bowl with a "Four Flowers" motif, an Asian rice bowl with a celadon glaze, a Euro-American whiteware vessel with a hand-painted blue band, and a German mineral water/ale stoneware bottle (made pre-1920).

**T-127**

Two fragments of a German mineral water/ale stoneware bottle, probably made before 1920, were collected from T-127, Stratum Ic (Table 70).

**T-128**

Two ceramic fragments from two vessels were collected from T-128, Stratum Ia (Table 71). They are a Euro-American ironstone bowl with a large floral hand-painted decoration and a Chinese porcelain rice bowl with a "Bamboo" motif.

**T-130**

Fifteen fragments from eleven vessels were collected from T-130, Stratum Ii, SIHP# -7189 (Table 72). These include five Euro-American ironstone vessels, consisting of a fragment of an ewer, a fragment of a plate made in an English pottery between 1862 to 1891 (Stoke-on-Trent 2013); a second plate with a late nineteenth century brown transfer print, a large hollowware vessel, and a small bowl with annular banded decoration. Also collected were one Euro-American porcelain saucer and three Asian porcelains: a Japanese bowl, a Japanese sake bottle, and a fragment of an unidentified Asian tableware vessel.



**T-131**

Three fragments from three vessels were collected from T-131, Stratum Id (Table 73). They consist of one Euro-American whiteware plate, one Chinese porcelain bowl with a “Four Flowers” motif, and one Japanese porcelain dish with “Dashed Line” transfer print (made between the 1870s to the 1920s).

**T-132**

Twenty-four ceramic fragments from 21 vessels were collected from T-132, Strata Id and Ie (Table 74). These consist of seven Euro-American vessels, three Asian celadon glaze bowls, five Japanese “Dashed Line” transfer prints (1870s–1920s), one painted Japanese dish, three Chinese stoneware jars, and two Chinese porcelains with a Four Flowers” motif.

**T-134**

Eleven fragments from ten vessels were collected from T-134, Strata Ib, Ie, and If (Table 75), consisting of three Euro-American and seven Asian vessels. The Euro-American vessels are comprised of a porcelain saucer with a decal decoration (post-1880), an ironstone plate, and a stoneware crock. The Asian vessels are a Chinese stoneware jar, an Asian rice bowl with a celadon glaze, two Chinese vessels with a “Four Flowers” motif, two Japanese vessels with a “Dashed Line” transfer print (made from the 1870s to the 1920s), and a Japanese stoneware sake bottle.

**T-137**

One fragment from an Euro-American ironstone mug was collected from T-137, Stratum Ib (Table 76).

**T-138**

Six fragments from five vessels were collected from T-138, Stratum II (Table 77). They consist of three Chinese stoneware shouldered jars, one Chinese liquor warmer with a “Sweet Pea” motif, and one British Ferruginous/Bristol glaze stoneware bottle made in the second half of the nineteenth century.

**T-140**

Five fragments from five vessels were collected from T-140, Stratum Ih (Table 78). They consist of one Euro-American stoneware whiskey-style shouldered jug, two Japanese porcelain bowls with a “Dashed Line” transfer print (made between the 1870s and 1920s), one Asian (probably Japanese) porcelain rice bowl, and one Chinese rice bowl with a “Sweet Pea” motif.

**T-141**

Eight fragments from seven vessels were collected from T-141, SIHP #5820 Feature 31, a pit of mixed fill (Table 79). They consist of three Euro-American whiteware vessels, two Chinese porcelain vessels with a “Four Flowers” motif, one Chinese stoneware food jar, and one Japanese porcelain dish with a “Dashed Line” transfer print (made in the 1870s–1920s).

**T-142**

Nine fragments from four vessels were collected from T-142, SIHP #-5820 Feature 7 (Table 80). They consist of one German mineral water/ale stoneware bottle (probably made pre-1920) and three Euro-American whiteware vessels, one with an edge-decorated rim.

**T-143**

Thirty-nine (39) fragments from 24 to 28 vessels (Vessel 6 may actually be fragments to four vessels) were collected from T-143, Strata Id and Id/Ie (Table 81). They consist of eight Euro-American, two German, two British, six Chinese, and five Japanese vessels. The Euro-American vessels include a possible chamber pot with a hand-painted floral motif, a hand-painted plate, a hand-painted large bowl and a few undecorated vessels. The German and British vessels are bottles. The Chinese vessels include two stoneware food jars and a small lidded jar, and several porcelain bowls with hand-painted motifs. The Japanese vessels consist of three rice bowls, one small bowl, and a tea cup with painted "Dashed Line" motifs.

**T-148A**

The three fragments collected from T-148A, Stratum Ib (Table 82), consist of two fragments from a Euro-American whiteware bowl with a painted floral "Lokelani" motif and one fragment of a Japanese porcelain straight-sided cup with a painted floral motif.

**T-152**

One Euro-American whiteware tableware fragment was collected from T-152, Stratum Ig (Table 83).

Table 60. West Kaka'ako, T-116, Ceramics

Acc. # 116- A-	Prov.	Type	Portion	No.	Paste	Ware	Decoration	Rim Motif	Origin; Age	Comments
1	T-116, St. Ij	Hollowware - large	Base to body	1	Refined earthenware	Ironstone	None	--	Euro- American	
2	T-116, St. Ij	Flatware - saucer with cup ring	Base to rim	1	Refined earthenware	Ironstone	Leaf molded	None	Euro- American	
3	T-116, St. Ij	Hollowware - large mug	Body to rim	1	Refined earthenware	Ironstone	None	None	Euro- American	9.8 (D)
4	T-116, St. Ij	Hollowware - rice bowl	Base to body	1	Porcelain	--	Sweet Pea motif, painted underglaze	--	Chinese	High foot
5	T-116, St. Ij	Bottle	Complete	1	Stoneware	--	Ferruginous glaze (upper), Bristol glaze (lower)	--	British; 1835-1900	Two-tone ferruginous glaze (upper), Bristol glaze (lower)
6	T-116, St. Ij	Bottle	Complete	1	Stoneware	--	Ferruginous glaze (upper), Bristol glaze (lower)	--	British; 1835-1900	Two-tone ferruginous glaze (upper), Bristol glaze (lower)

Table 61. West Kaka'ako, T-117, Ceramics

Acc. # 117- A-	Prov.	Type	Portion	No.	Paste	Ware	Decoration	Rim Motif	Origin; Age	Comments
1	T-117, St. Ic	Hollowware - bowl	Base to rim	2	Porcelain	--	Bamboo motif, painted underglaze	Bluish- gray bands	Chinese	High foot; 10.0 (D)

Acc. # 117-A-	Prov.	Type	Portion	No.	Paste	Ware	Decoration	Rim Motif	Origin; Age	Comments
2	T-117, St. Ic	Hollowware - crock or jar	Body	1	Stoneware	--	Brown clay slip	--	Chinese	
3	T-117, St. Ic	Hollowware - large crock	Base	1	Stoneware	--	Brown clay slip	--	Chinese	Cylindrical vessel; base unglazed
4	T-117, St. Ic	Hollowware - bowl or wash basin	Body and rim	33	Refined earthenware	Ironstone	--	None	Euro- American	

Table 62. West Kaka'ako, T-118, Ceramics

Acc. # 118-A-	Prov.	Type	Portion	No.	Paste	Ware	Decoration	Rim Motif	Origin; Age	Comments
1	T-118, St. Ib	Flatware - plate	Base to rim	1	Refined earthenware	Whiteware	None	None	Euro- American	

Table 63. West Kaka'ako, T-119A, Ceramics

Acc. # 119A-A-	Prov.	Type	Portion	No.	Paste	Ware	Decoration	Rim Motif	Origin; Age	Comments
1	T-119A, SIHP #- 7428 Fe. 1a	Flatware - plate or dish	Body and rim	2	Porcelain	--	Om motif, painted underglaze	Blue bands	Chinese	Two blue bands (int.)
2	T-119A, SIHP #- 7428 Fe. 1a	Flatware - plate or dish	Base	1	Porcelain	--	Allah motif, painted underglaze	--	Chinese	
3	T-119A, SIHP #- 7428 Fe. 1a	Hollowware - rice bowl	Body	1	Porcelain	--	Blue unknown design, painted underglaze	--	Asian, probably Japanese	Decoration on exterior

Table 64. West Kaka'ako, T-120B, Ceramics

Acc. # 120B-A-	Prov.	Type	Portion	No.	Paste	Ware	Decoration	Rim Motif	Origin; Age	Comments
1	T-120B, St. Ic-II	Bottle, Mineral water/ale	Body and handle	1	Stoneware	--	Brown salt-glaze	--	German, pre-1920	
2	T-120B, St. Ic-II	Hollowware - large carinated bowl	Rim - body	6	Refined earthenware	Whiteware	Annular banded mocha	None	Euro-American	blue, white, black; 4 brown bands at foot
3	T-120B, St. Ic-II	Tableware - unidentified	Base - body	4	Refined earthenware	Whiteware	None	--	Euro-American	
4	T-120B, St. Ic-II	Hollowware - nappy	Rim - body	2	Refined earthenware	Yellowware	None	Relief molded	Euro-American	
5	T-120B, St. Ic-II	Hollowware - large possible bowl	Rim	1	Refined earthenware	Yellowware	--	--	Euro-American	
6	T-120B, St. Ic-II	Hollowware - small cup/bowl	Rim - body	1	Porcelain	--	Unknown blue pattern, painted underglaze	None	Chinese	
7	T-120B, St. Ic-II	Flatwar -, plate or platter	Body	1	Porcelain	--	Cobalt blue, Willow pattern, transfer print	--	Euro-American	

Table 65. West Kaka'ako, T-121, Ceramics

Acc. # 121-A-	Prov.	Type	Portion	No.	Paste	Ware	Decoration	Rim Motif	Origin; Age	Comments
1	T-121, St. Ic	Flatware - saucer with cup ring	Base to rim	1	Refined earthenware	Ironstone	Blue design with "ZE..."; transfer print	Thick blue band & thin red band (ext.)	English; 1872-1905	"M / Porcelaine" crown logo - Moore Bros. base mark
2	T-121, St. Ic	Hollowware - large bowl	Body to rim	2	Refined earthenware	Whiteware	Cut sponge stencil, painted underglaze	Blue band (ext. & int.)	Euro-American	Red and green geometric pattern

Table 66. West Kaka'ako, T-122, Ceramics

Acc. # 122-A-	Prov.	Type	Portion	No.	Paste	Ware	Decoration	Rim Motif	Origin; Age	Comments
1	T-122, St. II, SIHP #- 2963	Tea pot	Complete	1	Porcelain	--	Brown, black figure of man and woman in kimono, painted overglaze	None	Asian	Asian characters on one side

Table 67. West Kaka'ako, T-124, Ceramics

Acc. # 124-A-	Prov.	Type	Portion	No.	Paste	Ware	Decoration	Rim Motif	Origin; Age	Comments
1	T-124, St. Id	Hollowware - bowl	Body to rim	1	Porcelain	--	Sweet Pea motif, painted underglaze	Banded	Chinese	
2	T-124, St. Id	Flatwar -, plate	Base- body	2	Refined earthenware	Ironstone	None	None	Euro- American	

Table 68. West Kaka'ako, T-125, Ceramics

Acc. # 125-A-	Prov.	Type	Portion	No.	Paste	Ware	Decoration	Rim Motif	Origin; Age	Comments
1	T-125, St. Id	Bottle?	Body	1	Stoneware	--	None	--	Euro- American	
2	T-125, St. Id	Tableware - unidentified	Body	1	Refined earthenware	Whiteware	--	--	Euro- American	
3	T-125, St. Id	Crock	Base	1	Stoneware	--	--	--	Euro- American	
4	T-125, St. Id	Flatware - saucer or plate	Base	1	Refined earthenware	Whiteware	Large green floral motif, painted underglaze	--	Euro- American	

Acc. # 125-A-	Prov.	Type	Portion	No.	Paste	Ware	Decoration	Rim Motif	Origin; Age	Comments
5	T-125, St. Ic	Hollowware - cup or mug	Base and body	2	Refined earthenware	Ironstone	Molded	--	Euro- American	Blue tinted white color; 9.0 (D); molded flutes

Table 69. West Kaka'ako, T-126, Ceramics

Acc. # 126-A-	Prov.	Type	Portion	No.	Paste	Ware	Decoration	Rim Motif	Origin; Age	Comments
1	T-126, St. Ic	Flatware - large plate or dish	Base to body	1	Porcelain	--	Allah motif, painted under- glaze	--	Chinese	Blue band (int.) near bottom
2	T-126, St. Ic	Hollowware - rice bowl	Base to body	1	Porcelain	--	Celadon glaze	--	Asian	Blue base stamp on back; Asian character
3	T-126, St. Ic	Hollowware - shallow bowl	Base to rim	1	Porcelain	--	Four Flowers motif, painted overglaze	Oxidized edge	Chinese	Gold paint; high foot
4	T-126, St. Ic	Hollowware, small	Base	1	Refined earthenware	Whiteware	Blue band, painted underglaze	--	Euro- American	
5	T-126, St. Ic	Bottle - mineral water/ale	Body	2	Stoneware	--	Brown salt glaze	--	German; pre-1920	

Table 70. West Kaka'ako, T-127, Ceramics

Acc. # 127-A-	Prov.	Type	Portion	No.	Paste	Ware	Decoration	Rim Motif	Origin; Age	Comments
1	T-127, St. Ic	Bottle	Body	2	Stoneware	--	Brown salt glaze	--	German; pre-1920	

Table 71. West Kaka'ako, T-128, Ceramics

Acc. # 128-A-	Prov.	Type	Portion	No.	Paste	Ware	Decoration	Rim Motif	Origin; Age	Comments
1	T-128, St. Ia	Hollowware - large bowl	Body to rim	1	Refined earthenware	Ironstone	Large floral, possibly Lokelani style, painted underglaze	Two red bands (ext.)	Euro- American	Green leaf only on fragment (int.);
2	T-128, St. Ia	Hollowware - rice bowl	Base to body	1	Porcelain	--	Bamboo motif, painted underglaze	--	Chinese	high foot

Table 72. West Kaka'ako, T-130, Ceramics

Acc. # 130-A-	Prov.	Type	Portion	No.	Paste	Ware	Decoration	Rim Motif	Origin; Age	Comments
1	T-130, St. Ii, SIHP #-7189	Flatware - plate	Body to rim	1	Refined earthenware	Ironstone	Brown floral transfer print	--	Euro- American, post-1870	Asymmetric design
2	T-130, St. Ii, SIHP #-7189	Flatware - saucer	Base to rim	1	Porcelain	--	Decal, with possible painting overglaze	None	Euro- American, post-1880	Black flowers; 13.0 (D)
3	T-130, St. Ii, SIHP #-7189	Hollowware - large bowl	Body to base	1	Refined earthenware	Whiteware	Large polychrome floral, painted underglaze	--	Euro- American	Blue flowers; green leaves; Lokelani pattern
4	T-130, St. Ii, SIHP #-7189	Hollowware - small flared bowl	Body to rim	1	Refined earthenware	Ironstone	Annular slip glaze with painting underglaze	Annular	Euro- American	Wide green band between two brown bands
5	T-130, St. Ii, SIHP #-7189	Hollowware - unidentified	Body to rim	1	Refined earthenware	Ironstone	None	Flared	Euro- American	



Acc. # 130-A-	Prov.	Type	Portion	No.	Paste	Ware	Decoration	Rim Motif	Origin; Age	Comments
6	T-130, St. Ii, SIHP #7189	Hollowware - celadon rice bowl	Base to rim	1	Porcelain	--	Appliqué; painted underglaze	Gilt edge	Japanese	Dark Green flowers; base: blue Asian character
7	T-130, St. Ii, SIHP #7189	Hollowware - cup	Complete	1	Refined earthenware	Whiteware	Green floral decal with painting overglaze	None	Euro-American, post-1880	917 (D); 6.5 (H)); small green flowers; handle broken off
8	T-130, St. Ii, SIHP #7189	Bottle, sake	Base-body	1	Porcelain	--	Blue characters within a blue cartouche	--	Japanese	High gloss
9	T-130, St. Ii, SIHP #7189	Tableware - unidentified	Base	1	Porcelain	--	--	--	Asian	Base: Asian characters
10	T-130, St. Ii, SIHP #7189	Ewer	Body (4); rim (1)	5	Refined earthenware	Ironstone	Molded Wheat pattern	None	Euro-American	
11	T-130, St. Ii, SIHP #7189	Flatware - plate	Base to rim	1	Refined earthenware	Ironstone	None	Molded ribbon	English; 1862-1891	Base; Green stamp: " [Royal Seal / STONE CHINA / E & C CHALLINOR / FENTON"; E. & C. Challinor; FENTON

Table 73. West Kaka'ako, T-131, Ceramics

Acc. # 131-A-	Prov.	Type	Portion	No.	Paste	Ware	Decoration	Rim Motif	Origin; Age	Comments
1	T-131, St. Id	Hollowware - shallow dish	Base to rim	1	Porcelain	--	Dashed Line blue transfer print; Three Friends motif	Scalloped blue rim (ext.)	Japanese; 1870s-1920s	14.8 (D) x 4.2 (H)

Acc. # 131-A-	Prov.	Type	Portion	No.	Paste	Ware	Decoration	Rim Motif	Origin; Age	Comments
2	T-131, St. Id	Hollowware - bowl	Body to rim	1	Porcelain	--	Four Flowers motif; painted overglaze	Gilt edge	Chinese	Black & green flowers; 3.0 (H)
3	T-131, St. Id	Flatware - plate	Rim	1	Refined earthenware	Whiteware	Cut Sponge stencil; geometric, underglaze	Red band (int.), painted	Euro- American	Red flowers; green geometric pattern

Table 74. West Kaka'ako, T-132, Ceramics

Acc. # 132-A-	Prov.	Type	Portion	No.	Paste	Ware	Decoration	Rim Motif	Origin; Age	Comments
1	T-132, St. Id	Hollowware - nappy	Rim	1	Refined earthenware	Yellowware	--	None	Euro- American	
2	T-132, St. Id	Hollowware - cup or mug	Base to body	1	Refined earthenware	Ironstone	None	--	Euro- American	
3	T-132, St. Id	Hollowware - small cup	Body	1	Refined earthenware	Whiteware	Blue, painted underglaze	--	Euro- American	Possibly cut sponge stencil
4	T-132, St. Id	Jar, food	Body	1	Stoneware	--	Brown slip glaze	--	Chinese	
5	T-132, St. Id, SIHP #-7189	Jar, spouted	Body	2	Stoneware	--	Brown slip glaze	--	Chinese	Spout broken
6	T-132, St. Id, SIHP #-7189	Flatware - saucer with cup ring	Base to rim	1	Refined earthenware	Whiteware	Dark green floral transfer print, underglaze, molded	None	Euro- American	Molded flutes around interior center of dish
7	T-132, St. Id, SIHP #-7189	Hollowware - rice bowl	Base to rim	1	Porcelain	--	Blue transfer print – Dashed Line, underglaze	Pendant	Japanese; 1870s- 1920s	Base: Asian character on base

Acc. # 132-A-	Prov.	Type	Portion	No.	Paste	Ware	Decoration	Rim Motif	Origin; Age	Comments
8	T-132, St. Ie, SIHP #7189	Hollowware - rice bowl	Base to body	1	Porcelain	--	Blue transfer print – Dashed Line, underglaze	Pendant	Japanese; 1870s-1920s	Base: Asian character on base
9	T-132, St. Ie, SIHP #7189	Hollowware - straight-sided cup	Base to body	1	Porcelain	--	Blue transfer print – Dashed Line, underglaze	--	Japanese; 1870s-1920s	
10	T-132, St. Ie, SIHP #7189	Hollowware - large serving bowl	Base to body	1	Porcelain	--	Four Flowers motif, painted overglaze	--	Chinese	Black and gold
11	T-132, St. Ie, SIHP #7189	Hollowware - small condiment dish	Base to rim	1	Porcelain	--	Blue transfer print, scenic, underglaze	--	Japanese	Two Asian people in kimonos?; 6.6 (D) x 2.5 (H)
12	T-132, St. Ie, SIHP #7189	Hollowware - unidentified	Base to rim	1	Refined earthenware	Whiteware	Floral, painted underglaze	Red band	Euro-American	Possible cut sponge stencil
13	T-132, St. Ie, SIHP #7189	Flatware - plate	Body	1	Refined earthenware	Whiteware	Floral, painted underglaze	--	Euro-American	Blue, pink; possibly cut sponge stencil
14	T-132, St. Ie, SIHP #7189	Hollowware - small bottle/jar	Base to body	1	Stoneware	--	Brown slip glaze	--	Chinese	
15	T-132, St. Ie, SIHP #7189	Hollowware - bowl	Base to rim	2	Porcelain	--	Celadon glaze	--	Asian	Base: Asian character
16	T-132, St. Ie, SIHP #7189	Hollowware - rice bowl	Body	1	Porcelain	--	Celadon glaze	--	Asian	7.3 (D) x 3.5 (H); blue character on base
17	T-132, St. Ie, SIHP #7189	Hollowware - rice bowl	Body	1	Porcelain	--	Celadon glaze	--	Asian	7.3 (D) x 3.5 (H); blue character on base

Acc. # 132-A-	Prov.	Type	Portion	No.	Paste	Ware	Decoration	Rim Motif	Origin; Age	Comments
18	T-132, St. Ie, SIHP #7189	Hollowware - rice bowl	Base to body	1	Porcelain	--	Blue transfer print – Dashed Line, underglaze	--	Japanese; 1870s-1920s	blue character on base; 10.5 (D) x 3.9 (H)
19	T-132, St. Ie, SIHP #7189	Hollowware - straight-sided cup	Base to body	2	Porcelain	--	Blue transfer print – Dashed Line, underglaze	--	Japanese; 1870s-1920s	
20	T-132, St. Ie, SIHP #7189	Hollowware - cup	Base to body	1	Porcelain	--	Red glaze, painted overglaze	--	Chinese	5.1 (D) x 4.0 (H); red character
21	T-132, St. Ie, SIHP #7189	Hollowware - unidentified	Rim	1	Refined earthenware	Yellowware	Relief molded	--	Euro-American	

Table 75. West Kaka'ako, T-134, Ceramics

Acc. # 134-A-	Prov.	Type	Portion	No.	Paste	Ware	Decoration	Rim Motif	Origin; Age	Comments
1	T-134, St. Ib	Hollowware - rice bowl	Base to rim	1	Porcelain	--	Celadon glaze	--	Asian	
2	T-134, St. Ib	Jar, food	Rim	1	Stoneware	--	Brown slip glaze	--	Chinese--	
3	T-134, St. Ib	Hollowware - rice bowl	Base to body	1	Porcelain	--	Blue "Dashed Line" transfer print, underglaze	Banded	Japanese, 1870s-1920s	Three friends motif
4	T-134, St. Ie	Tableware - unidentified	Base to body	1	Porcelain	--	Four Flowers motif, painted overglaze	--	Chinese	Garland of green leaves; red flower in center
5	T-134, St. Ie	Hollowware - large serving dish	Base to rim	1	Porcelain	--	Four Flowers motif, painted overglaze	Oxidized edge	Chinese	17.5 (D) x 7.5 (H)

Acc. # 134-A-	Prov.	Type	Portion	No.	Paste	Ware	Decoration	Rim Motif	Origin; Age	Comments
6	T-134, St. Ie	Flatware - saucer with cup ring	Base	2	Porcelain	--	Decal floral pattern, painted overglaze	--	Euro- American, post-1880	Small blue & red flowers, red stems
7	T-134, St. Ie	Hollowware - straight-sided cup	Base to rim	1	Porcelain	--	Blue Dashed Line geometric transfer print	Pendant design (int.)	Japanese, 1870s- 1920s	7.1 (D) x 6.4 (H)
8	T-134, St. Ie	Flatware - plate	Base to rim	1	Refined earthenware	Ironstone	--	--	Euro- American	
9	T-134, St. Ie	Bottle, sake	Base to neck	1	Stoneware	--	--	--	Japanese	Unglazed base
10	T-134, St. Ie	Crock	Base	1	Stoneware	--	--	--	Euro- American	Unglazed base

Table 76. West Kaka'ako, T-137, Ceramics

Acc. # 137-A-	Prov.	Type	Portion	No.	Paste	Ware	Decoration	Rim Motif	Origin; Age	Comments
1	T-137, St. Ib	Hollowware - mug	Body to rim	1	Refined earthenware	Ironstone	--	Molded	Euro- American	7.8 (D)

Table 77. West Kaka'ako, T-138, Ceramics

Acc. # 138-A-	Prov.	Type	Portion	No.	Paste	Ware	Decoration	Rim Motif	Origin; Age	Comments
1	T-138, St. II, SIHP #-7189	Bottle	Complete	1	Stoneware	--	Ferruginous glaze (top half), Bristol glaze (bottom half)	--	British; 1835-1900	22.0 (H) x 7.0 (D)
2	T-138, St. II, SIHP #-7189	Jar, wide- shouldered food	Complete	1	Stoneware	--	--	--	Chinese	Unglazed base; 10.3 (D) x 10.5 (H)
3	T-138, St. II, SIHP #-7189	Jar, wide- shouldered food	Complete	1	Stoneware	--	--	--	Chinese	

Acc. # 138-A-	Prov.	Type	Portion	No.	Paste	Ware	Decoration	Rim Motif	Origin; Age	Comments
4	T-138, St. II, SIHP #-7189	Jar, wide-shouldered food	Body to rim	2	Stoneware	--	--	--	Chinese	
5	T-138, St. II, SIHP #-7189	Hollowware - liquor warmer	Complete	1	Porcelain	--	Sweet Pea motif, painted underglaze	--	Chinese	Spout broken

Table 78. West Kaka'ako, T-140, Ceramics

Acc. # 140-A-	Prov.	Type	Portion	No.	Paste	Ware	Decoration	Rim Motif	Origin; Age	Comments
1	T-140, St. Ih, SIHP #-7189	Hollowware - shallow bowl	Base to body	1	Porcelain	--	Blue Dashed Line floral and geometric transfer print, underglaze	Pendants	Japanese; 1870s-1920s	
2	T-140, St. Ih, SIHP #-7189	Hollowware - rice bowl	Body	1	Porcelain	--	Blue design, painted underglaze	--	Asian, probably Japanese	Blue dots & curlicues, thin line
3	T-140, St. Ih, SIHP #-7189	Jug, shouldered	Body	1	Stoneware	--	Embossed; Bristol slip	--	Euro-American	Embossed horizontally on body: "M. RADAMS, ...OBE KILLE..."
4	T-140, St. Ih, SIHP #-7189	Hollowware - rice bowl	Base to rim	1	Porcelain	--	Blue Dashed Line floral and geometric transfer print, underglaze	Pendants	Japanese; 1870s-1920s	
5	T-140, St. Ih, SIHP #-7189	Hollowware - rice bowl	Base to rim	1	Porcelain	--	Sweet Pea motif, painted underglaze	--	Chinese	high foot

Table 79. West Kaka'ako, T-141, Ceramics

Acc. # 141-A-	Prov.	Type	Portion	No.	Paste	Ware	Decoration	Rim Motif	Origin; Age	Comments
1	T-141, SIHP #- 5820, Fea. 31	Hollowware - unidentified	Rim	1	Porcelain	--	Four Flowers motif; painted overglaze	--	Chinese	
2	T-141, SIHP #- 5820, Fea. 31	Tableware - small dish	Body	1	Porcelain	--	Blue Dashed Line floral transfer print, underglaze	--	Japanese, 1870s- 1920s	
3	T-141, SIHP #- 5820, Fea. 31	Hollowware - straight-sided cup	Base to body	1	Porcelain	--	Four Flowers motif; painted overglaze	--	Chinese	Green on exterior, white in interior
4	T-141, SIHP #- 5820, Fea. 31	Jar, food	Base	1	Stoneware	--	Brown slip glaze	--	Chinese	
5	T-141, SIHP #- 5820, Fea. 31	Flatware - saucer with cup ring	Base	1	Refined earthenware	Whiteware	--	--	Euro- American	
6	T-141, SIHP #- 5820, Fea. 31	Unknown	Base to body	1	Refined earthenware	Whiteware	--	--	Euro- American	Rectangular vessel
7	T-141, SIHP #- 5820, Fea. 31	Hollowware- small unidentified	Rim	2	Refined earthenware	Whiteware	--	--	Euro- American	Possibly two vessels

Table 80. West Kaka'ako, T-142, Ceramics

Acc. # 142-A-	Prov.	Type	Portion	No.	Paste	Ware	Decoration	Rim Motif	Origin; Age	Comments
1	T-142, SIHP #- 5820, Fea. 7	Flatware – plate	Body (2); base (2)	4	Refined Earthenware	Whiteware	--	--	Euro- American	
2	T-142, SIHP #- 5820, Fea. 7	Hollowware - large serving bowl	Body to rim	1	Refined Earthenware	Whiteware	--	Edge- decorated, relief molded	Euro- American	Blue rim
3	T-142, SIHP #- 5820, Fea. 7	Hollowware - unidentified	Base	1	Refined Earthenware	Whiteware	Dark blue geometric transfer print, underglaze	--	Euro- American	Possible base to large pitcher
4	T-142, SIHP #- 5820, Fea. 7	Bottle - Mineral water/ ale	Base and body	3	Stoneware	--	Brown salt glaze	--	German, pre-1820	8.9 cm (D)

Table 81. West Kaka'ako, T-143, Ceramics

Acc. # 143-A-	Prov.	Type	Portion	No.	Paste	Ware	Decoration	Rim Motif	Origin; Age	Comments
1	T-143, St. Id	Flatware - plate	Body to rim	2	Refined Earthenware	Whiteware	Polychrome floral, painted underglaze	Red band	Euro- American	Flowers; red, yellow, green
2	T-143, St. Id	Hollowware - possibly a chamberpot	Base to body	1	Refined Earthenware	Whiteware	Red floral, painted underglaze	--	Euro- American	Red flower & stems
3	T-143, St. Id	Hollowware - teacup	Body to rim	1	Porcelain	--	Blue Dashed Line transfer print, underglaze	--	Japanese, 1870s- 1920s	
4	T-143, St. Id	Hollowware - lidded jar	Body to rim	1	Stoneware	--	Brown slip glaze	--	Chinese	Lid missing



Acc. # 143-A-	Prov.	Type	Portion	No.	Paste	Ware	Decoration	Rim Motif	Origin; Age	Comments
5	T-143, St. Id	Jar, food	Body	1	Stoneware	--	Brown slip glaze	--	Chinese	
6	T-143, St. Id/II	Bottle - Mineral water/ ale	Body (7); base (2)	9	Stoneware	--	Brown salt glaze	--	German, pre-1920	May be up to four vessels; 10.7 cm (D)
7	T-143, St. Id	Tableware - unidentified	Rim	1	Refined Earthenware	Whiteware	--	--	Euro- American	
8	T-143, St. Id	Tableware - unidentified	Body	1	Refined Earthenware	Whiteware	Bluish-green floral, painted underglaze	--	Euro- American	
9	T-143, St. Id	Bottle - Mineral water/ ale	Body	2	Stoneware	--	Brown salt glaze		German, pre-1920	
10	T-143, St. Id	Jar, Food	Body	2	Stoneware	--	Brown slip glaze		Chinese	
11	T-143, St. Id	Tableware - unidentified	Body	2	Refined Earthenware	Whiteware	--	--	Euro- American	
12	T-143, St. Id/Ie	Hollowware - rice bowl	Base to Rim	1	Porcelain	--	Blue Dashed Line geometric transfer print, underglaze	Pendant (int.)	Japanese, 1870s- 1920s	
13	T-143, St. Id/Ie	Hollowware - rice bowl	Rim	1	Porcelain	--	Blue Dashed Line floral transfer print, underglaze	Pendant (int.)	Japanese, 1870s- 1920s	
14	T-143, St. Id/Ie	Flatware - small plate or platter	Rim	2	Refined Earthenware	Whiteware	--	--	Euro- American	
15	T-143, St. Id/Ie	Hollowware - small bowl	Rim	1	Refined Earthenware	Whiteware	--	--	Euro- American	
16	T-143, St. Id/Ie	Hollowware - large bowl	Base to body; rim	2	Porcelain	--	Blue floral, painted underglaze	Blue transfer print	Chinese	4.2 cm (D)

Acc. # 143-A-	Prov.	Type	Portion	No.	Paste	Ware	Decoration	Rim Motif	Origin; Age	Comments
17	T-143, St. Id/Ie	Hollowware - rice bowl	Base to body	1	Porcelain	--	Blue Dashed Line geometric transfer print	--	Japanese, 1870s- 1920s	
18	T-143, St. Id/Ie	Tableware - small bowl or dish	Rim	1	Porcelain	--	Blue Dashed Line transfer print	Pendant	Japanese, 1870s- 1920s	
19	T-143, St. Id/Ie	Flatware - small dish	Base to rim	1	Porcelain	--	Four Flowers motif, painted overglaze	--	Chinese	
20	T-143, St. Id/Ie	Hollowware - rice bowl	Base to rim	2	Porcelain	--	Bamboo motif, painted underglaze	One gray line (int.)	Chinese	Cobalt blue paint
21	T-143, St. Id/Ie	Hollowware - large bowl	Body to rim	1	Refined Earthenware	Whiteware	Blue geometric pattern, painted under- glaze	Blue bands; 2 int. 1 ext.;	Euro- American	
22	T-143, St. Id/Ie	Flatware – oval platter	Base to rim	1	Refined Earthenware	Ironstone	--	--	English; 1870-1890	Black base mark: "Royal Seal / T. Furnival & Sons/ Trade [anchor] Mark /England".
23a, b	T-143, St. Id/Ie	Flatware – plate	Complete; two fragments	2	Refined Earthenware	Ironstone	--	--	English; 1873-1891	Black base mark "Royal Seal"; "Royal Pat. / Ironstone/ George Jones & S..." black ink

Table 82. West Kaka'ako, T-148A, Ceramics

Acc. # 148A-A-	Prov.	Type	Portion	No.	Paste	Ware	Decoration	Rim Motif	Origin; Age	Comments
1	T-148A, St. Ib	Hollowware - straight-sided cup	Body to rim	1	Porcelain	--	Blue floral, painted under- glaze	--	Japanese	Blue leaves
2	T-148A, St. Ib	Hollowware - large bowl	Body to rim	2	Refined earthenware	Whiteware	Polychrome floral, Lokelani motif, painted underglaze	Red band, int. & ext.	Euro- American	Green leaves, black stems, large flowers

Table 83. West Kaka'ako, T-152, Ceramics

Acc. # 152-A-	Prov.	Type	Portion	No.	Paste	Ware	Decoration	Rim Motif	Origin; Age	Comments
1	T-152, St. Ig	Tableware - unidentified	Body	1	Refined earthenware	Whiteware	--	--	Euro- American	